DOCUMENT RESUME

ED 252 939 EA 017 449

TITLE Process Model for Course of Study. Minimum Standards Implementation Series.
INSTITUTION Ohio State Dept. of Education, Columbus. Div. of Elementary and Secondary Education.
PUB DATE 83
NOTE 79p.; For related documents, see EA 017 445-459.
PUB TYPE Guides - Non-Classroom Use (055) -- Legal/Legislative/Regulatory Materials (090)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Competency Based Education; Compliance (Legal); Course Content; *Course Objectives; *Curriculum Development; *Educational Objectives; Elementary Secondary Education; Equal Education; Instructional Development; Models; Outcomes of Education; *Program Development; State Curriculum Guides; *State Standards
IDENTIFIERS *Ohio; Ohio State Board of Education

ABSTRACT

This is one of three publications prepared by the Ohio State Board of Education to assist schools in implementing a competency based education program, as required by the 1983 revised minimum standards for elementary and secondary schools. The aim of this publication is to clarify the requirements of the minimum standards regarding (1) the function of courses of study in the instructional program, (2) the format for developing courses of study, and (3) the development of pupil performance objectives. Chapter 1 provides an overview of the legal bases for course of study development. Chapter 2 is a discussion of various considerations in course-of-study development, including equity issues, the incorporation of mandated topics, committee selection, curriculum development, format options, approval procedures, and available state services. Chapter 3 provides a process model for developing a course of study. Components described include cover sheet, statement of approval by school board, table of contents, introduction, district philosophy and goals, program philosophy and goals, scope and sequence, pupil evaluation policy, and review plan. Chapter 4 covers the process of developing pupil performance objectives. Appendixes include a checklist to monitor course-of-study development, information about available materials, and samples of various components of a course of study. A bibliography is included. (TE)

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FOREWORD

With the adoption of the 1983 minimum standards, the State Board of Education has established conditions to promote a general education of high quality in all chartered schools. The State Board of Education recognizes its responsibility to give direction to the system of education in the state. At the same time, there is flexibility within standards to establish educational programs that are responsive to local needs.

Minimum Standards for Elementary and Secondary Schools 1983 provide the potential for greatly improving education in Ohio. That potential can be reached through well-structured local and state leadership. To assist responsible implementation of minimum standards, staff in the Ohio Department of Education have prepared an implementation series consisting of fourteen documents. A distinction is made among the publications. Only one, *Procedures for School Evaluations*, is a compliance document. It contains the standards in a format readily used for self-evaluation. School personnel will find information about what is needed for a district and schools within the district to comply with standards. In the remaining publications, an effort is made to specify what the standard requires. Additional information, guidelines, procedural steps, and sample forms may go beyond what the standard requires. The purpose is to assist the local planning process, not to prescribe what shall be in every school in Ohio.

Minimum standards address the public's increasing expectations for schools with a requirement for competency based education in English composition, mathematics, and reading. Three of the publications, *Process Model for Course of Study, Competency Assessment and Testing,* and *Intervention* are aligned in addressing competency based education. A number of options are described for local consideration.

Appreciation is extended to school personnel who contributed to these publications by sharing their time, expertise, and materials. Appreciation is also extended to staff members who worked untold hours to make these publications possible.

Franklin B. Walter

Franklin B. Walter
Superintendent of Public Instruction

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PREFACE

PREFACE

Process Model for Course of Study, Competency Assessment and Testing, and *Intervention* are three publications that will be helpful in implementing a competency based education program as required by the Minimum Standards for Elementary and Secondary Schools 1983. Each of the three documents addresses different aspects of effective competency based education programs. Although each book is designed to stand alone, all three are needed for full implementation. The following descriptions indicate which document should be used for each phase.

During the early planning stages, Sections One, Four, and Five of the *Competency Assessment and Testing* document will be most helpful. Included are a list of issues and decisions (Section One), suggestions on how to get started (Section Four), and sample timelines (Section Five).

For suggestions regarding the format for each course of study, see the *Process Model for Course of Study* document Chapters One through Three. Chapter Four of the *Process Model for Course of Study* deals with the development of pupil performance objectives for the competency programs in English composition, mathematics, and reading.

Many assessment and testing decisions are discussed in Section Two of the *Competency Assessment and Testing* document. For each decision several options are evaluated in terms of advantages and disadvantages. In addition, illustrative guidelines for the use of assessment results are offered and considerations related to handicapped students are discussed.

For assistance in planning and implementing an effective instruction/intervention component, see the *Intervention* document. Suggestions regarding the format and design of the intervention component of the competency program are offered in Parts I and II. The elements of effective instructional programs in the three areas for which competency programs are required are discussed in Parts III, IV, and V. In addition, many alternative approaches to intervention in the three areas are detailed and illustrative teaching strategies are offered.

Suggestions for planning a review and evaluating the impact of the competency programs are offered in Section Three of the *Competency Assessment and Testing* document.

Since 1980, the Ohio Department of Education has assisted curriculum development throughout the state by disseminating the *Course of Study Development: A Process Model.* Educators familiar with that document will note that it provided the basis for this publication.

PREFACE

The members of the task force that developed the revised *Process Model for Course of Study* feel a great sense of gratitude for the curriculum work done by the earlier committee. Accordingly, we acknowledge the developers of the original process model: Ruthann M. Heintschel, Reid E. Baker, Frank L. Schiraldi, Hazeldean M. Stent, and Piyush Swami.

INTRODUCTION

INTRODUCTION

This publication has been prepared to assist school district personnel in developing courses of study.

The Revised Code, Section 3313.60, requires boards of education to prescribe a graded course of study for all schools under their control. The mandate applies to boards of education of all *county, exempted village,* and *city* school districts. According to the Revised Code, courses of study are subject to the approval of the State Board of Education. Courses of study submitted to the Ohio Department of Education are reviewed by the Division of Elementary and Secondary Education. In addition, Minimum Standards for Elementary and Secondary Schools require that a course of study be adopted for each subject taught.

INTRODUCTION

PURPOSE

It is the aim of this publication to clarify the requirements of the minimum standards regarding course of study development. School district personnel are responsible for developing courses of study that comply with minimum standards and meet the needs of students they serve.

For persons involved in curriculum review and course of study development, this publication serves three purposes:

1. To clarify the function of courses of study in the instructional program.
2. To present the format for developing courses of study.
3. To provide for the development of pupil performance objectives, an essential part of the competency based education program.

INTRODUCTION

DESCRIPTION OF CONTENTS

Four chapters and a series of appendices are included in this publication. Chapter One provides an overview of the legal bases for course of study development. Course of study is defined and the parts of the Revised Code and minimum standards that deal with the course of study are cited.

Chapter Two involves a discussion of those items to be taken into consideration when developing courses of study. Topics treated in this chapter include equity issues, incorporating topics mandated by the minimum standards into courses of study, committee selection for developing courses of study, a curriculum development model and curriculum cycle, course of study format options, general course of study approval procedures, and Ohio Department of Education course of study services available.

Chapter Three deals with a process model to be followed in developing courses of study. Each component of a course of study is specified and described, along with a series of activities delineating the steps that can be followed to develop the component. In addition, there are sections in the chapter devoted to the topics of program needs assessment and program evaluation.

Chapter Four explains the process of developing pupil performance objectives for the competency based education program from the subject objectives contained within the courses of study. Activities and examples are provided.

Several appendices are included in this publication. They include a checklist to monitor course of study development, information about available materials, and samples of the various components of a course of study.

INTRODUCTION

DEFINITIONS

Course of Study—An official school district document prescribing what shall be taught based on program philosophy, goals, and objective statements.

Curriculum Guide—A document that combines both a course of study and an instructional guide.

District Goal—A broad statement of one of a school district's educational aims based on the district's philosophy.

District Philosophy—A statement that describes a school district's educational purpose and rationale.

Instructional Guide—A document based on course of study objectives that specifies learning activities and instructional materials, resources, and methods.

Program—An area of study (i.e., language arts, mathematics, music) made up of specific subjects.

Program Goal—A broad statement defining the overall nature and content of one aspect of the program based on the program philosophy.

Program Objective—A broad outcome statement derived from a program goal.

Program Philosophy—A statement that describes a program's educational purpose and rationale based on a school district's philosophy.

Pupil Evaluation Policy—A statement of methods, processes, and criteria by which student learning outcomes will be measured, assessed, and evaluated.

Pupil Performance Objective—A statement derived from a prescribed goal and objective delineating an expected student outcome as an observable behavior or product of behavior.

Scope—The breadth and depth of a program as defined by the program and subject objectives.

Sequence—The arrangement of program and subject objectives in a hierarchical order.

Subject—A subdivision of a program organized by grades at elementary level (i.e., First Grade Language Arts, Third Grade Mathematics, Fourth Grade Music) and by courses at the secondary level (i.e., American Literature, Geometry, Music Appreciation).

Subject Objective—A specific learning outcome statement based on a program objective.

LEGAL BASES

CHAPTER ONE
LEGAL BASES FOR COURSES OF STUDY

While courses of study are required by law in Ohio, there are sound educational reasons for their development and implementation. This chapter presents the legal bases for courses of study and defines what is meant by the term "course of study."

COURSE OF STUDY MANDATES

Since 1953, the Revised Code, Section 3313.60, has served as the legal basis for courses of study. This section of the Revised Code was amended in 1957 to require boards of education of county, exempted village, and city school districts to prescribe courses of study for all schools under their control subject to approval by the State Board of Education. The statute designated subjects which must be taught and established specific requirements for some subjects. Amendments enacted by the General Assembly in 1975, 1978, and 1980 increased the requirements.

The minimum standards include more specific requirements regarding courses of study. Standard 3301-35-02 (B) includes the required elements for a course of study and prescribes subjects which must be included in a competency based education program. Courses of study for English language arts, mathematics, and reading will serve as bases for the locally developed competency based education program. Additionally, courses of study are required by chartered and nonchartered nontax-supported schools.

Revised Code

The Revised Code, Section 3313.60, specifies subjects which must be taught and establishes specific requirements for some subjects. The following is the text of the statute, effective June 1980.

Section 3313.60, Boards of education of county, exempted village, and city school districts shall prescribe a graded course of study for all schools under their control subject to the approval of the state board of education. In such graded courses of study there shall be included the study of the following subjects:

(A) The language arts, including reading, writing, spelling, oral and written English, and literature.

(B) Geography, the history of the United States and of Ohio, and national, state and local government in the United States, including a balanced presentation of the relevant contributions to society of men and women of African, Mexican, Puerto Rican, and American Indian descent as well as other ethnic and racial groups in Ohio and the United States;

(C) Mathematics;

LEGAL BASES

(D) Natural science, including instruction in the conservation of natural resources;

(E) Health education which shall include instruction in the nutritive value of foods, including natural and organically produced foods, the relation of nutrition to health, the use and effects of food additives, and the harmful effects of and legal restrictions against the use of drugs of abuse, alcoholic beverages and tobacco, and venereal disease education, except that upon written request of his parent or guardian, a student shall be excused from taking instruction in venereal disease education;

(F) Physical education;

(G) The fine arts, including music;

(H) First aid, including a training program in cardiopulmonary resuscitation, safety and fire prevention, except that upon written request of his parent or guardian, a student shall be excused from taking instruction in cardiopulmonary resuscitation.

Every school shall include in the requirements for promotion from the eighth grade one year's course of study of American history.

Every high school shall include in the requirements of graduation from any curriculum one unit of American history and government, including a study of the constitutions of the United States and of Ohio.

Basic instruction in geography, United States history, the government of the United States, the government of the state of Ohio, local government in Ohio, the Declaration of Independence, the United States Constitution, and the Constitution of the state of Ohio shall be required before pupils may participate in courses involving the study of social problems, economics, foreign affairs, United Nations, world government, socialism, and communism.

Minimum Standards

Minimum Standards for Elementary and Secondary Schools, effective September 1, 1983 include requirements regarding course of study. Standards which relate to courses of study are presented below:

Standards

3301-35-02 Educational Program.

The kindergarten through twelfth grade educational program shall be implemented in accordance with adopted policies which cover paragraphs (A) to (E) of this rule. Board policies shall be available to parents, pupils, and school personnel.

(A) A written philosophy of education and educational goals shall give direction to the educational program and shall provide a basis for daily operations.

(1) The educational program shall be provided without discrimination on the basis of color, national origin, race, or sex.

LEGAL BASES

(2) The philosophy of education and educational goals shall reflect pupil interests and needs identified by broad representation of community, pupils, and staff.

(B) Curriculum and instruction shall be characterized by systematic planning, articulation, implementation, and evaluation.

(1) Courses of study shall establish the basis for curriculum and instruction.

(a) A course of study shall be adopted for each subject taught. Each course of study shall:

(i) comply with the provisions of 3313.60 of the Revised Code;

(ii) be based on the philosophy of education and educational goals;

(iii) prescribe what is to be taught;

(iv) specify subject matter objectives;

(v) establish a scope and sequence;

(vi) provide a basis for pupil evaluation.

(b) Courses of study shall provide for the following topics to be a part of the curriculum: career education, citizenship, human relations education, multi-cultural education, energy and resource conservation education, and instruction in study skills.

(c) Courses of study shall be reviewed and updated at least once every five years.

(2) Locally developed competency based education programs shall be implemented for English composition, mathematics, and reading.

(a) Pupil performance objectives shall be established for English composition, mathematics, and reading.

(b) Provisions shall be made for periodic assessment of pupil performance, including testing at least once in grades one through four, grades five through eight, and grades nine through eleven.

(c) Guidelines shall be established for the use of assessment results for instruction, evaluation, intervention, guidance, and promotion decisions.

(d) Intervention shall be provided according to pupil needs.

(3) Daily lesson plans shall give direction for instruction and implementation of courses of study.

LEGAL BASES

3301-35-03 Educational Resources.

Resources for implementation of the educational program shall be allocated in accordance with adopted policies which cover paragraphs (A) to (K) of this rule. Board policies shall be available to parents, pupils, and school personnel.

(B) Instructional materials and equipment shall support attainment of objectives specified in courses of study.

(2) A library shall be provided in each school.

(a) The library collection shall:

(i) include materials which support attainment of objectives specified in courses of study.

(C) Facilities shall accommodate the enrollment and the philosophy of education and educational goals of the school.

(1) Facilities shall be of a quality and quantity to support pupil learning relative to objectives specified in courses of study.

LEGAL BASES

COURSE OF STUDY DEFINED

Considering what the law and standards say about courses of study, it is useful before proceeding further to define "course of study." A course of study is both the official statement of what shall be taught in each program in a school district and a form of communication. As the official statement of what shall be taught, it represents an educational commitment on the part of the board of education responsible for approval and school personnel who develop and implement it. As a form of communication, it tells school personnel clearly and concisely what is to be taught in a given subject or a program for a particular grade. The course of study also conveys to all interested persons an accurate description of what is currently being taught and provides the foundation for the locally developed competency based education program.

A course of study is primarily a working document that gives both structure and direction to an educational program. The philosophy of the program, as stated in a course of study, should be consistent with the stated philosophy of the school district. Goals and objectives should be those which permit accurate assessment of the extent to which objectives are met.

Although educators often use the terms interchangeably, a course of study is not a curriculum guide. A course of study is part of a curriculum guide, with the instructional guide being the other part. The course of study and the instructional guide each have a separate function. The major differences between the two are:

Course of Study	*Instructional Guide*
1. Prescribes what is to be taught in a given subject or program.	1. Suggests how a given subject or area of study may be taught.
2. Defines the subject or program in terms of philosophy, goals, and objectives.	2. Contains suggestions as to instructional aids, materials, learning experiences, and teaching methods.
3. Can be changed only by action of the board of education.	3. Is revised, altered, or amended as necessary at the discretion of school personnel.

While there is no legal mandate to do so, school districts may elect to develop instructional guides to supplement courses of study. The development of instructional guides is strictly a matter of choice, whereas boards of education are required by law to prescribe courses of study. The instructional guide cannot be considered a substitute for the course of study for purposes of compliance with the law.

CHAPTER TWO

CONSIDERATIONS IN COURSE OF STUDY DEVELOPMENT

This chapter deals with several diverse topics that should be considered before and during course of study development. Careful attention to these topics will enable districts to plan for such development in an efficient manner.

EDUCATIONAL EQUITY

Educational equity is a commitment by educators to prepare all students to be citizens dedicated to the affirmation of the dignity and worth of human beings, regardless of their color, national origin, race, or sex. "Equal access to and opportunity in public education are basic principles in the American way of life. Educators must make certain that human rights are understood and protected..." (*Council of Chief State School Officers 1980 Policy Statements*, pp. 1-2).

Rule 3301-35-02 (A)(1) indicates that educational equity should underlie all educational efforts of the district and, therefore, is reflected in the development and implementation of courses of study. Listed in Appendix C are materials available from the Ohio Department of Education and other sources to assist school district personnel in performing this task.

TOPICS TO BE INCLUDED IN THE CURRICULUM

Rule 3301-35-02 (B)(1)(b) states that courses of study should provide for the following topics to be a part of the curriculum:

Career Education prepares students to make career decisions based on what they know about themselves and the world of work. It is not taught as a separate subject during the school day but is integrated into other subjects. Learning is linked with preparation for life.

Citizenship involves the rights, responsibilities, and tasks associated with informed participation in the various groups to which a person belongs, e.g., family, community, state, and nation. Citizenship education requires learning and instruction related to the development of those competencies individuals need in order to discharge their responsibilities as citizens.

Human Relations provides opportunities for greater communication among students and staff to further the understanding and acceptance of oneself and others.

Multicultural Education is a philosophy that preserves and enhances cultural pluralism. It is a concept based on the belief that all people must be accorded respect, regardless of their social, ethnic, cultural, and religious background.

CONSIDERATIONS

Energy and Resource Conservation Education provides students with an understanding of the varied consequences of wise or reckless use of the world's natural resources. Students learn how to participate actively in moving local, national, and world societies toward an acceptable balance between a healthy environment and a sound economic system.

Study Skills involves the development of those skills needed to acquire and record information, to analyze facts, and to apply conclusions.

Listed in Appendix C are materials that are available from the Ohio Department of Education and other sources to assist school district personnel in implementing the above topics in the educational program.

COMMITTEE SELECTION FOR DEVELOPING COURSE OF STUDY

The selection of course of study committee members is an important part in the process of developing a course of study. School districts are encouraged to include representatives of the community, parents, and board members as well as school administrators, classroom teachers, and education specialists on their course of study committee. This expanded group is responsible for developing the program philosophy and program goals of the course of study. A working committee continues the process by developing the scope and sequence section of the course of study. This committee will work through subcommittees composed of grade level or subject teachers to develop subject objectives.

A committee that is representative of a variety of interests is especially important when the course of study is in one of the areas for which a competency program will be developed. This is one way to keep the community-at-large informed of each step in the process.

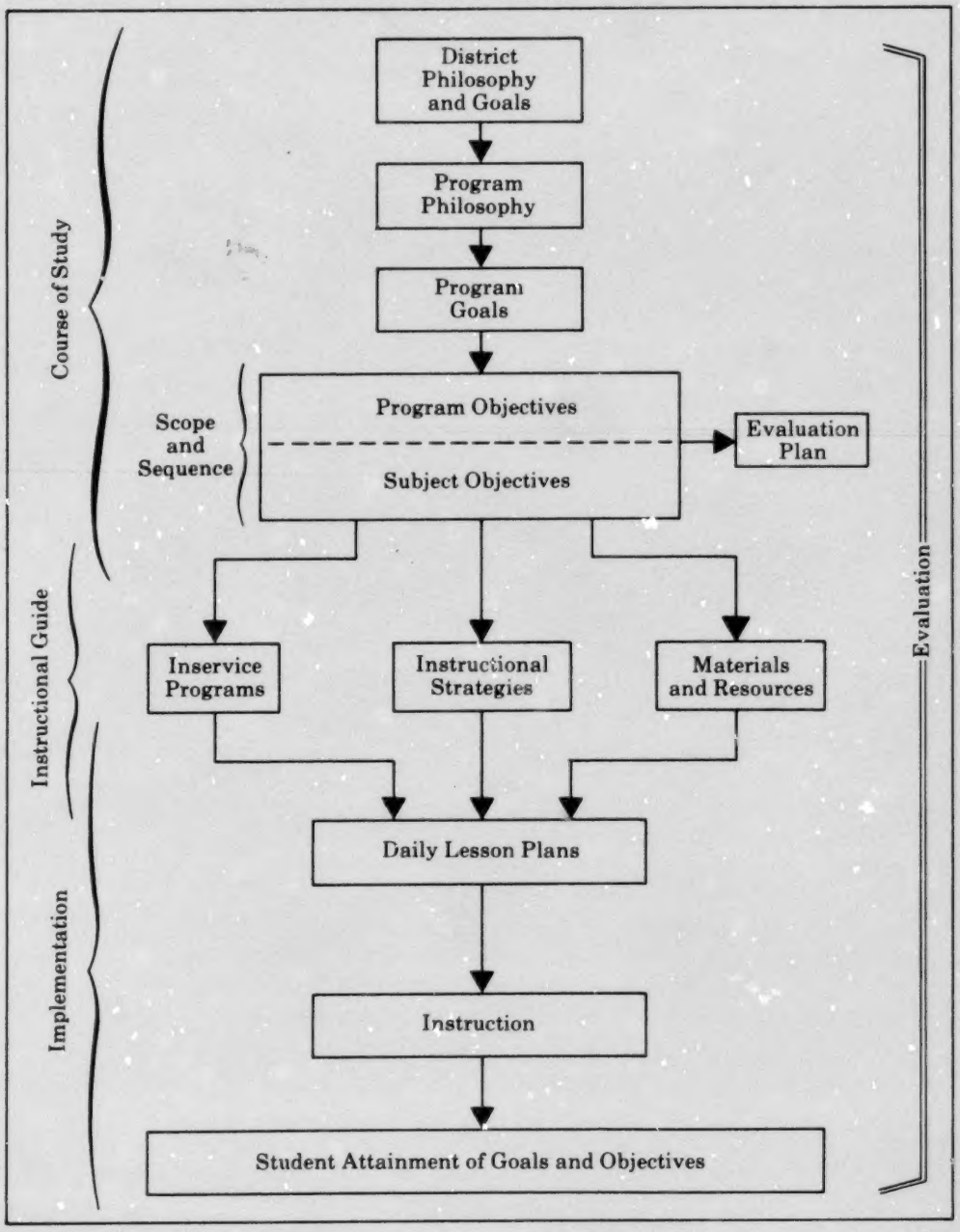
CURRICULUM DEVELOPMENT MODEL

The minimum standards provide direction for curriculum development. The Curriculum Development Model presented in Figure 1 diagrams one way of developing curriculum in compliance with the standards. In this model each component is an integral part of the whole. Thus, the development of courses of study provides the basis for the creation of instructional guides and gives direction to daily classroom instruction. The development of instructional guides is a recommended but optional activity for school districts. Each program in a school district has a common focus as daily instruction is the actual implementation of identified goals and objectives developed for that program.

CONSIDERATIONS

This model provides the basis for the course of study development information presented in Chapter Three. Therefore, courses of study are developed so that there is a correlation and an interrelationship between the various components.

FIGURE 1 CURRICULUM DEVELOPMENT MODEL

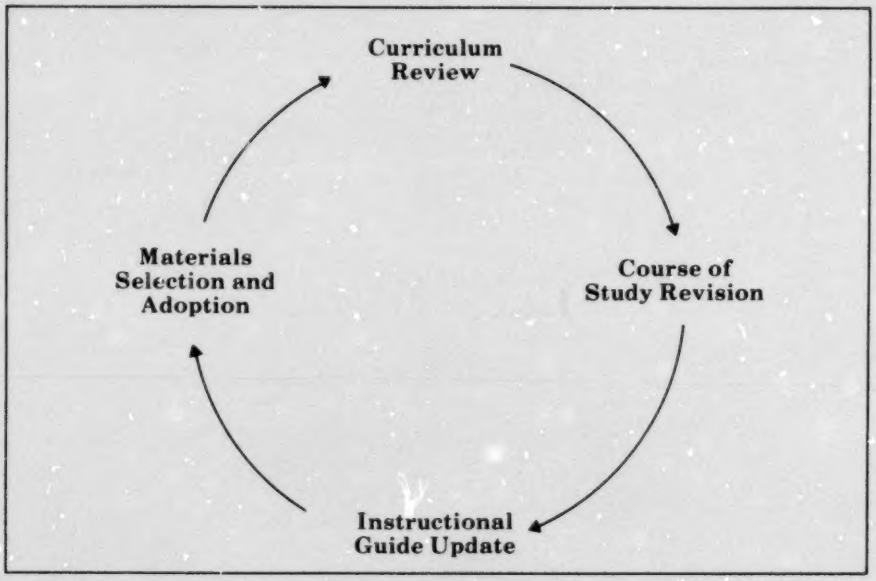


CONSIDERATIONS

CURRICULUM CYCLE

With Rule 3301-35-02 (B)(1)(c) requiring a five-year cycle for reviewing and updating courses of study, each program in a school district's curriculum should be on a similar cycle. Course of study development is one aspect of the curriculum cycle. Figure 2 presents a model of the four activities that occur on a continuous basis in the curriculum cycle.

FIGURE 2 CURRICULUM CYCLE



The activities in the cycle are arranged in a logical sequence, which is designed to maximize local control over curriculum development. Any alteration in the sequence may result in reduced local control and a lessening of the ability to meet local student needs. A brief description of each of the identified activities follows.

Curriculum Review

The curriculum review is undertaken to enable a school district to study its current programs. Each program is reviewed in two ways. A needs assessment is conducted as a quantitative measurement to determine the scope of the needs in each program and the extent to which those needs are being addressed. A program evaluation is conducted as a qualitative measurement to determine the degree to which the program goals and objectives are being attained. Chapter Three of this publication contains more detailed information on needs assessment and program evaluation.

CONSIDERATIONS

Course of Study Revision

The initial development of courses of study or their revision on a five-year cycle follows the curriculum review. Data gained from the review are used to develop or revise courses of study. The detailed information in Chapter Three of this publication is appropriate for both the development and revision of courses of study.

Instructional Guide Update

Following the development or revision of a course of study, the district may create or update the instructional guide. This guide provides teachers with information that gives direction to the scope and sequence in the course of study. As the course of study prescribes what is to be taught, the instructional guide provides information about how to teach the prescribed objectives and what materials or resources are available for use in the instructional process.

While some districts combine a course of study and instructional guide into a single document, a curriculum guide, others prefer to keep them separate. In either case, only the course of study is reviewed by the Ohio Department of Education for approval.

Materials Selection and Adoption

Following the development or revision of the course of study and the creation or update of the instructional guide, the district should then consider the selection of textbooks and other learning materials. The district should identify textbooks and materials that will enhance the implementation of objectives contained in the courses of study.

This returns the cycle to the curriculum review which is conducted to evaluate the new program that has been created. The cycle is continuous as there is a constant striving to improve each program in order to meet student needs.

OPTIONS IN FORMAT

In following the directive to prescribe a course of study for each subject taught, school district personnel may choose to take one of two options. One approach is to develop a course of study for each *subject* (e.g., American Literature, Business Mathematics, Third Grade Science) taught in the schools. The second option is for school district personnel to develop K-12 courses of study for *programs* (e.g., language arts, mathematics, science). In this approach, the subject objectives are identified for each grade level and for each subject (e.g., Fifth Grade Language Arts, Algebra I, Physics).

CONSIDERATIONS FOR COURSE OF STUDY APPROVAL

Courses of study are to be submitted to the Ohio Department of Education for review and approval at least every five years. They must contain an official statement of prior approval by the board of education of county, exempted village, or city school districts or by the proper authority in nontax supported schools and school systems.

CONSIDERATIONS

As explained in Chapter Three, a local school district may develop courses of study independent from those established by the county. However, the local district must submit these courses of study to the county board of education for approval prior to subsequent submission to the Ohio Department of Education.

SERVICES AVAILABLE

The staff of the Division of Elementary and Secondary Education is available for consultation. School districts developing courses of study are urged to contact the course of study or program area consultants for assistance.

A Course of Study Library has been established in the Division of Elementary and Secondary Education, Room 1005, 65 South Front Street, Columbus, OH 43215. The library contains sample courses of study developed in school districts in Ohio and is open to all educators.

SUMMARY

Course of study requirements are not new in Ohio schools. For years school district personnel have engaged in curriculum review and course of study development in order to provide quality educational programs for students. In addition to the course of study being mandated by Ohio law and minimum standards, there are four reasons that make the course of study essential to a school district's educational program. First, the course of study identifies the skills and concepts teachers are responsible for teaching. Second, the course of study gives parents and students an accurate description of the content that will be covered during a school year. Third, the course of study ensures commonality and continuity in the educational program available to students within school districts. And fourth, the course of study provides the foundation for the locally developed competency based education programs, as prescribed by the minimum standards.

DEVELOPMENT

CHAPTER THREE
DEVELOPING THE COURSE OF STUDY

Each course of study submitted to the Ohio Department of Education for approval should include the components named below:

1. Cover Sheet.
*2. Statement of Approval by the Board of Education.
3. Table of Contents.
4. Introduction.
**5. District Philosophy and Goals.
6. Program Philosophy.
7. Program Goals.
**8. Scope and Sequence:
   8.1 Program Objectives.
   8.2 Subject Objectives.
**9. Pupil Evaluation Policy.

*Required by the Revised Code.

**Required by the Minimum Standards for Elementary and Secondary Schools.

In the development of a course of study, it is critical that the process be guided by an understanding that even though separate sections are written for philosophy, goals, scope and sequence, and pupil evaluation policy, the document produced must exhibit a consistency and continuity derived from an overall perspective. Each section of the course of study should support and extend the section which precedes it. The logic of progression from section to section must be clear and unambiguous. While only the components marked by asterisks are required by law or minimum standards, it is recommended that all of the listed components be included in order to provide cohesiveness and usefulness.

COVER SHEET

A cover sheet should appear on the front of a course of study. The following information should be provided on the cover sheet: title of the course of study, designating clearly the program or subject; the date on which the course of study was adopted; and a complete school district name and address.

STATEMENT OF APPROVAL BY THE BOARD OF EDUCATION

Placed immediately after the cover sheet, on a separate page, is a statement of approval by the county, city, or exempted village board of education or the proper authority in nontax-supported schools and school systems. This document verifies that the course of study has been examined by the appropriate board and that formal action has been taken by that body relative to its adoption and implementation.

DEVELOPMENT

A local school district in a county system may, with prior approval of the county board of education, develop a course of study which differs significantly from the county course of study. In such cases, the local course of study must be submitted to the county board of education for approval and subsequently to the Ohio Department of Education. In addition, the local course of study should state specifically that it applies only to the schools in that local district.

TABLE OF CONTENTS

This section is set up following the same conventions that typically guide the development of a table of contents. This page(s) will be characterized by a variety of entries because of each course of study's uniqueness. However, the table of contents should always include a sufficient breakdown of topical designations so the reader is adequately informed as to the course of study contents.

INTRODUCTION

An introduction to a course of study serves several functions. It provides the reader with a general overview of the document. Directions on the appropriate use of the course of study are furnished and explained. In addition, a discussion of each section of the course of study is provided and an explanation of how the sections are interrelated. It states explicity who was involved in developing the course of study and how it was developed. Also, the purpose and function of the course of study are delineated.

DISTRICT PHILOSOPHY AND GOALS

Rule 3301-35-02 (A)(2) specifies that a written statement of school district philosophy and goals be formulated. The district statement of philosophy and goals shall be formally approved by the board of education and serves as the foundation underlying the educational efforts in a school district. These statements shall reflect student interests and needs identified by a broad representation of community, students, and school district staff.

PROGRAM PHILOSOPHY

A philosophy is essential to course of study review and development. By bringing together the curricular organization, instructional procedures, learning roles, resource selection, and other components of educational planning, the philosophy provides for decision making in a school district.

The statement of philosophy for each program taught within a district should be consistent with the district philosophy. The district philosophy provides a rationale for programs and provides the base upon which programs are built. Program philosophies apply directly to programs in areas such as science, foreign language, and music. While the developmental process of these philosophical statements is similar, the district philosophy reflects the broader framework of education and the program philosophies reflect the goals of a single program.

DEVELOPMENT

Position Statements

The process of developing a philosophy statement often brings to light controversial issues. The curriculum committee may develop statements on such issues which will serve as guides to teachers in the district. While position statements may be included in the course of study, they should be kept separate from the philosophy statements.

Developing A Program Philosophy

Establishing a program philosophy is a vital first step in the process of course of study review and development. The program philosophy states the rationale for including a particular program in the school curriculum. This may be described either in the form of beliefs about what students need or what a program can contribute toward fulfilling the general purposes of formal education. Those charged with this activity have a responsibility to articulate their positions in a clear, concise, and forthright manner. Without clearly stated reasons for a program's inclusion as an important part of the total curriculum, the philosophy statement fails to give direction to the course of study.

In developing philosophical statements for programs, those involved in the process should consider, among others, questions such as:

What is the purpose of the program?

What can this program do better than any other curricular program?

Should the activities of this program stress cooperation, competition, or both?

Should programs deal with controversial issues, or only those ideas for which there is established knowledge?

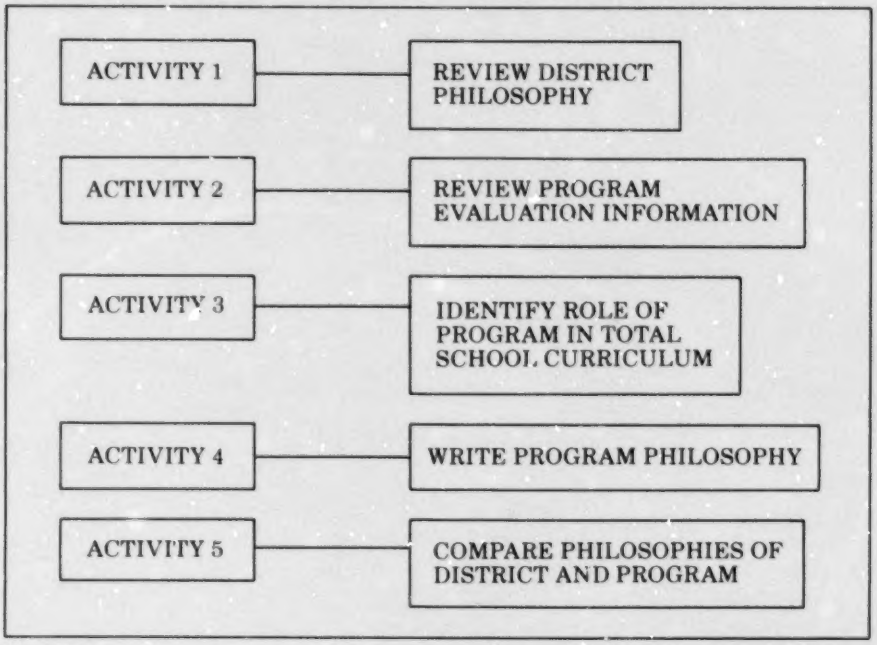
What should be taught—attitudes, basic skills, problem-solving strategies?

Should the program be based on the needs of the local community, society in general, and/or the expressed needs of students?

DEVELOPMENT

The model below suggests that the formulation of a program philosophy consists of five activities.

FIGURE 3 PROGRAM PHILOSOPHY PROCESS MODEL



Points for consideration and tasks to be performed in each of the five activities are outlined below. These may be modified as required by the needs of the individual school district.

ACTIVITY 1: REVIEW DISTRICT PHILOSOPHY

Purpose of Activity:

This activity is undertaken to gain a perspective on the broad philosophical framework within which a program must be imbedded. The district philosophy statement serves as the basis for a program philosophy.

Points to Consider:

1. The role of the school in the personal development of an individual.
2. The role of the school in meeting the needs of the society at large.
3. The scope of general education for all.
4. The role of the school in providing special education.
5. The role of any specific subject in the school program.
6. The role of the community, school staff, and students.
7. Current controversial issues.

Tasks to Perform:

1. Make a list of the beliefs stated in each of the following categories:
   1.1 Needs of the individual.
   1.2 Needs of the society.
2. Make a list of other ideas that should be included in the philosophy statement regarding general education, special education, controversial issues, etc.

ACTIVITY 2: REVIEW PROGRAM EVALUATION INFORMATION

Purpose of Activity:

In this activity an examination of both objectives and subjective evaluation data related to a program is accomplished. Decisions can then be made as to a program's effectiveness.

Points to Consider:

1. Information received from the school staff concerning the particular program.
2. Information received from the current students and graduates concerning the particular program.
3. Community information (parents, employers, and other community agencies) concerning the preparation of students.

Tasks to Perform:

1. Make a list of strengths and weaknesses in the program.
2. Decide upon a direction for the program based on program evaluation information.

ACTIVITY 3: IDENTIFY ROLE OF PROGRAM IN TOTAL SCHOOL CURRICULUM

Purpose of Activity:

At this point an analysis is made of how a program fits into the total district curriculum. The relationship of the program to the district philosophy emerges from this assessment.

Points to Consider:

1. Role of the program in promoting general education and special education.
2. Role of the program in providing for:
   2.1 Individual development.
   2.2 Fulfillment of the needs of society.
3. Special contributions of the program in enhancing the entire school curriculum.

Tasks to Perform:

1. List separately the specific needs of the individual and the society that should be fulfilled by the program. Consider the current program and program evaluation information.
2. Identify the role of the program in relation to the district philosophy statement.

DEVELOPMENT

ACTIVITY 4: WRITE PROGRAM PHILOSOPHY

Purpose of Activity:

In this activity a program philosophy is written.

Points to Consider:

1. Relation of the district philosophy to the program philosophy.
2. Use of clear and concise language.

Tasks to Perform:

1. List any features peculiar to the program.
2. List beliefs concerning the importance of the program in addition to the total school curriculum.
3. Develop a philosophical statement.
4. Make a list of any controversial issues which require position statements (to be developed separately).

ACTIVITY 5: COMPARE PHILOSOPHIES OF DISTRICT AND PROGRAM

Purpose of Activity:

The final activity involves analyzing the program philosophy to determine if it is consistent with the district philosophy, logically follows from the district philosophy, fulfills the district philosophy, and is in need of revision.

Points to Consider:

1. Role of the program in fulfilling the district philosophy.
2. Role of the program in general and special education.

Tasks to Perform:

1. Develop a list of variances identified among the different philosophy statements.
2. Revise the program philosophy as necessary.

PROGRAM GOALS

Program goals are broad statements of desired outcomes for a program. In this sense, they represent an intermediate step in the process of translating program philosophy into specific objectives. A program philosophy, which is primarily a rationale for the program, states why the program is an essential part of the total curriculum. Program goals define the overall nature and content of the program establishing the broad dimensions of what is expected as program outcomes. Program goals are an important component of the course of study because they:

- communicate the nature and content of the program to students, parents, teachers, administrators, and other publics;
- give shape and direction to the program by identifying the knowledge, skills, and judgments the students will be expected to demonstrate at the end of the program; and
- provide a cohesive framework for instruction and help avoid fragmentation.

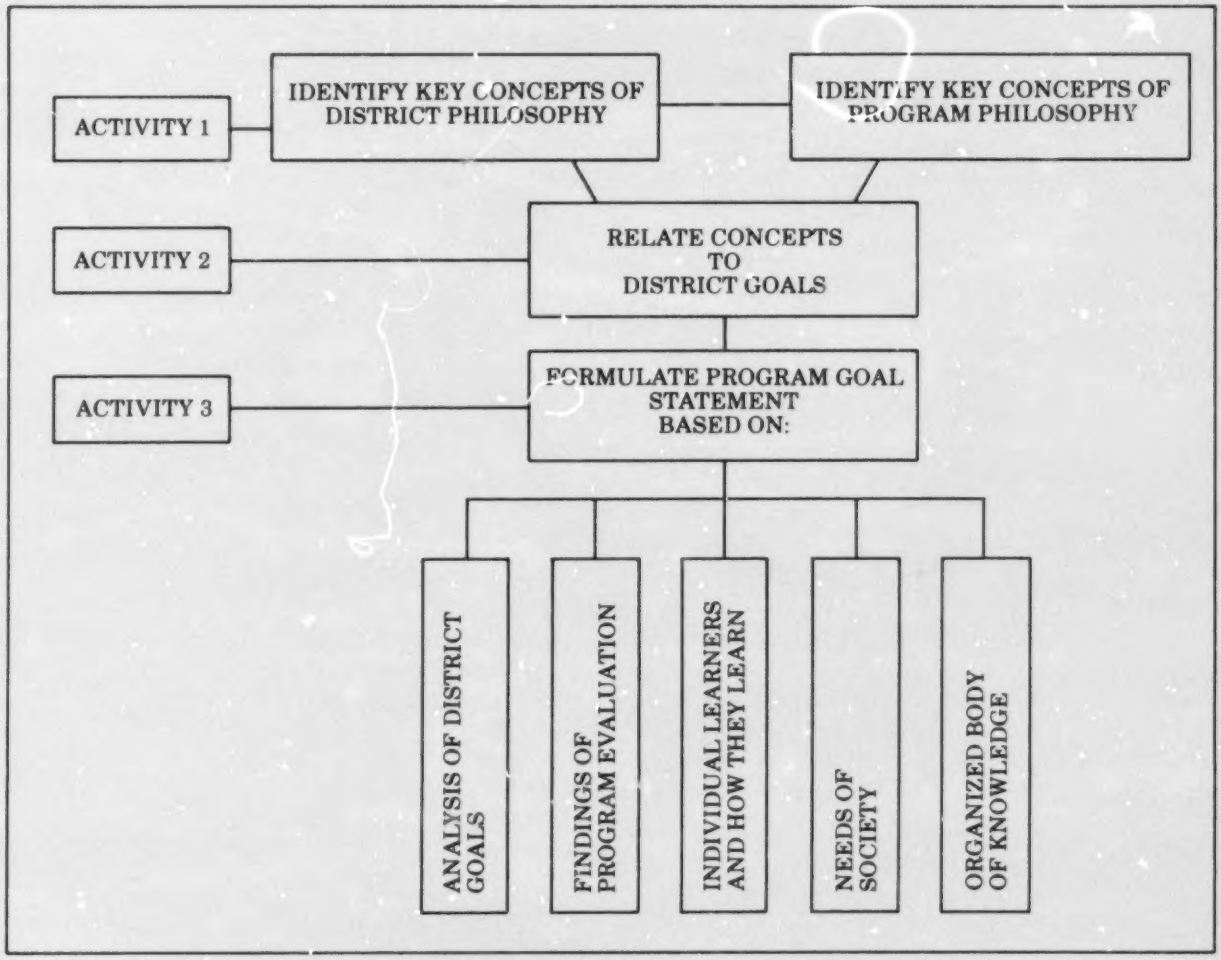
DEVELOPMENT

Developing Program Goals

Formulation of program goals should be preceded by a careful, thorough consideration of (1) individual learners and how they learn, (2) society and its forces, and (3) the organization of knowledge in the program area. Validation of program goals should be continuous, based on data obtained from a study of students, the needs of society, and current trends in the program area.

A suggested process for program goal formulation consists of three major activities. These activities and their logical progression in the formulation process are outlined in the model below.

FIGURE 4 **PROGRAM GOAL PROCESS MODEL**


ACTIVITY 1
IDENTIFY KEY CONCEPTS OF DISTRICT PHILOSOPHY
IDENTIFY KEY CONCEPTS OF PROGRAM PHILOSOPHY
ACTIVITY 2
RELATE CONCEPTS TO DISTRICT GOALS
ACTIVITY 3
FORMULATE PROGRAM GOAL STATEMENT BASED ON:
ANALYSIS OF DISTRICT GOALS
FINDINGS OF PROGRAM EVALUATION
INDIVIDUAL LEARNERS AND HOW THEY LEARN
NEEDS OF SOCIETY
ORGANIZED BODY OF KNOWLEDGE

Points for consideration and tasks to be performed in each of the three activities are outlined below. These may be modified as required by the needs of the individual school district.

DEVELOPMENT

ACTIVITY 1: IDENTIFY KEY CONCEPTS OF DISTRICT AND PROGRAM PHILOSOPHIES

Purpose of Activity:

This activity begins the process of specifying appropriate content and learning activities that should be dealt with in a program. Fundamental ideas in the district philosophy are specified so that relationships can be established with those same types of concepts in a program philosophy.

District Philosophy

Points to Consider:

1. Meaning of concepts for our students.
2. Relationship of concepts to specific program areas.
3. Significance of some concepts for all program areas.

Task to Perform:

1. List concepts in a comparison table such as the one suggested in Figure 5.

Program Philosophy

Points to Consider:

1. The program philosophy's key concepts.
2. Correspondence of key program concepts and district philosophy statement.
3. Possible omission of any key program concepts.

Tasks to Perform:

1. List concepts in a comparison table such as the one suggested in Figure 5.
2. Draw parallels with concepts from the district philosophy.

ACTIVITY 2: RELATE CONCEPTS TO DISTRICT GOALS

Purpose of Activity:

Through this activity it is determined if there is a continuity, consistency, and logical progression of district and program statements of philosophy and district goals.

Points to Consider:

1. Existence or nonexistence of district level goal statements.
2. Correspondence of existing district goal statements to concepts in the district philosophy statement.
3. Reflection of program philosophy concepts in district goals.

Tasks to Perform:

1. Indicate the correspondence of the program philosophy to district goals.
2. List goal statements in a comparison table such as the one suggested in Figure 5.
3. Draw parallels with items listed in each of the three columns in Figure 5.

DEVELOPMENT

FIGURE 5 TABLE OF COMPARISON FOR PHILOSOPHY AND GOAL STATEMENTS

I	II	III
DISTRICT PHILOSOPHY (KEY CONCEPTS)	PROGRAM PHILOSOPHY (KEY CONCEPTS)	DISTRICT GOALS
LIST KEY CONCEPTS OF PHILOSOPHY STATEMENT	LIST KEY CONCEPTS OF PHILOSOPHY STATEMENT DRAW PARALLELS WITH CONCEPTS IN COLUMNS I AND II	LIST GOAL STATEMENTS DRAW PARALLELS WITH CONCEPTS IN COLUMNS I, II, AND III.

ACTIVITY 3: FORMULATE PROGRAM GOAL STATEMENTS

Purpose of Activity:

Program goal statements are written in this step of the process model. These goals then serve as the framework within which a "Scope and Sequence" is established.

Points to Consider:

1. Determination of content for program goal statements.
2. Use of findings from a program evaluation.
3. Individual learners and how they learn.
4. Needs of society.
5. Program area relationship to the appropriate organized body of knowledge.

Tasks to Perform:

1. Analyze district goals to determine which goals pertain to the program.
2. Determine how district goals can be incorporated into program goals.
3. Derive data from the program evaluation that has significance for program goal statements.
4. Incorporate the data into goal statements.
5. Use research and experience that tells us about individual learners and how they learn as a basis for developing and assessing goal statements.
6. Determine the needs of society that could be addressed in the program and if and how goal statements should reflect these needs.
7. Specify the major components of the program area.
8. Determine those components that should serve as bases for program goal statements.
9. Formulate program goal statements based on items 1 through 8 above.

10. In a table such as the one suggested in Figure 6:
    10.1 Summarize and organize the findings in each of items 1 through 8 above.
    10.2 List them in order of importance.
    10.3 Check off each item as goal statements are formulated.

FIGURE 6 FORMULATING PROGRAM GOALS: A SUMMARY

Analysis of District Goals	Findings of Program Evaluation	Individual Learners and How They Learn	Needs of Society	Organized Body of Knowledge

SCOPE AND SEQUENCE

After the program philosophy and program goals have been formulated, the next steps are to determine program and subject objectives. These steps enable school planners to identify the content (scope) of each program at each level (sequence) of instruction.

The relationship of program philosophy, program goals, program objectives, and subject objectives assures continuity in the program. At the same time, it permits curriculum developers to view the program in totality and to avoid redundancy, gaps, and inconsistencies.

Program Objectives

Program objectives are broad outcome statements derived from program goals. These objectives reflect and define more explicitly the nature and content of the program area. Program objectives encompass several grade levels and/or subjects within a program. The following chart gives an example of a program goal and two of the many program objectives which may be derived from it.

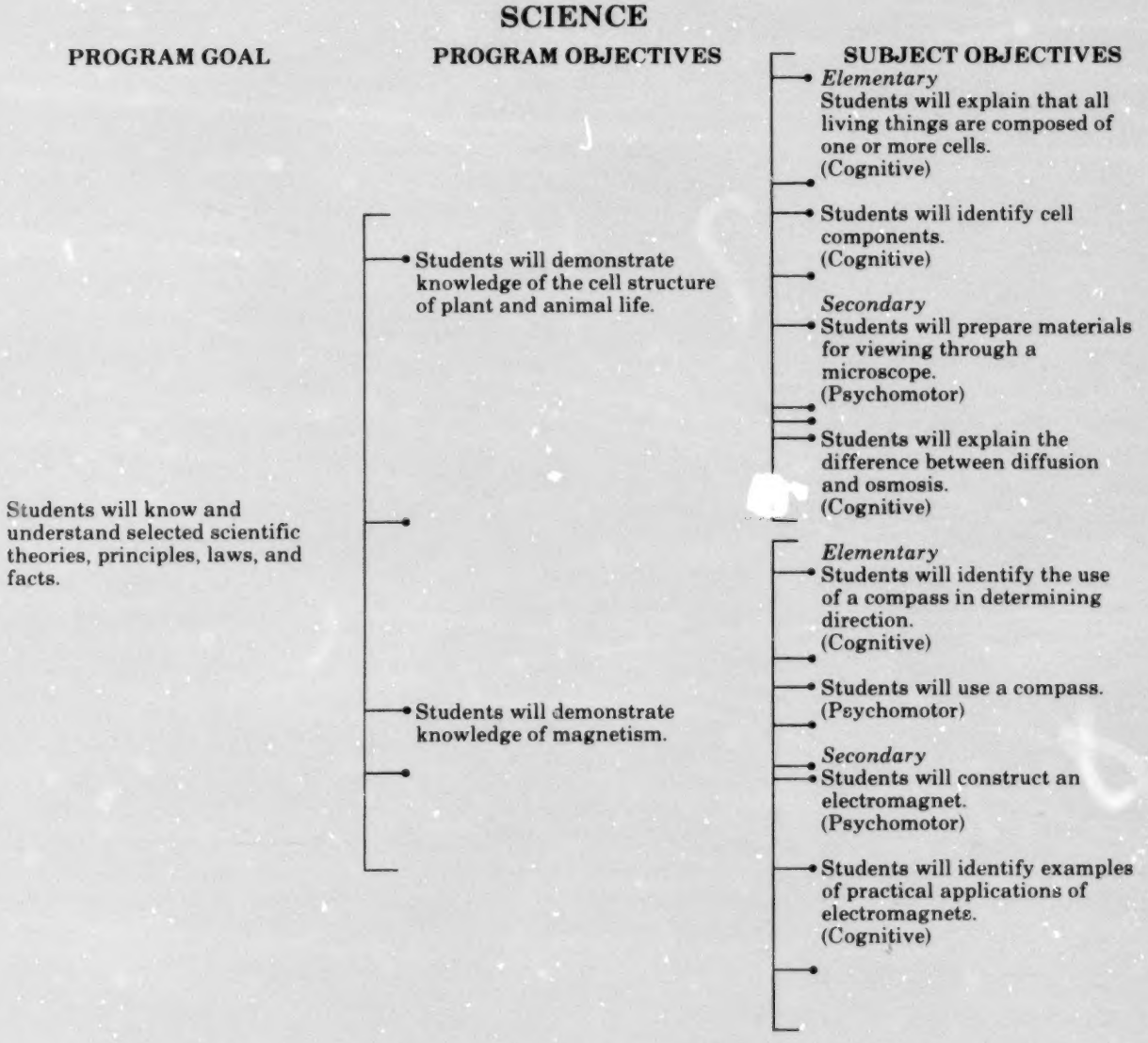
PROGRAM GOAL	PROGRAM OBJECTIVES
Students will know and understand selected scientific theories, principles, laws, and facts.	• Students will demonstrate knowledge of the cell structure of plant and animal life. • Students will demonstrate knowledge of magnetism. •

DEVELOPMENT

Subject Objectives

Subject objectives are the next level of objectives. These objectives are more specific in nature and indicate the desired learning outcomes for a given grade level or specific subject. These objectives facilitate grade level or subject planning and assessment. They are the basis for student grading.

The progression of subject objectives from the program goal and program objectives can be illustrated by expanding the above example as follows:


SCIENCE
PROGRAM GOAL
PROGRAM OBJECTIVES
SUBJECT OBJECTIVES
Students will know and understand selected scientific theories, principles, laws, and facts.
Students will demonstrate knowledge of the cell structure of plant and animal life.
Students will demonstrate knowledge of magnetism.
Elementary
Students will explain that all living things are composed of one or more cells. (Cognitive)
Students will identify cell components. (Cognitive)
Secondary
Students will prepare materials for viewing through a microscope. (Psychomotor)
Students will explain the difference between diffusion and osmosis. (Cognitive)
Elementary
Students will identify the use of a compass in determining direction. (Cognitive)
Students will use a compass. (Psychomotor)
Secondary
Students will construct an electromagnet. (Psychomotor)
Students will identify examples of practical applications of electromagnets. (Cognitive)

DEVELOPMENT

Program objectives and subject objectives are part of a course of study. Subject objectives serve as the guide for daily lesson plans. Lesson plans are not a part of the course of study but implement the course of study by giving direction for instruction [Rule 3301-35-02 (B)(3)]. The daily lesson plans are directed toward the achievement of subject objectives and eventually the attainment of program objectives.

Objectives at all three levels should address the cognitive, psychomotor, and affective domains. The *cognitive* domain includes those objectives that emphasize intellectual outcomes, such as knowledge, understanding, and thinking skills. The *affective* domain includes those objectives that emphasize feeling and emotion, such as interest, attitudes, appreciation, and methods of adjustment. The *psychomotor* domain includes those objectives that emphasize motor skills, such as handwriting, typing, dancing, and operating equipment.

Objectives designed to address each of these learning areas permit the curriculum developer to (1) group specific objectives of a similar nature together, (2) determine the sequence of segments of a course of study, (3) plan the conditions required for successful learning, and (4) to determine which subject objectives will be included in the district's competency based education programs.

Each of the three domains consists of a set of categories. A brief description of the major categories is as follows:

Cognitive Domain: (Bloom, 1956)

1. Knowledge—The ability to recall previously learned material.
2. Comprehension—The ability to grasp the meaning of material.
3. Application—The ability to use learned material in new and concrete situations.
4. Analysis—The ability to break down material into its component parts so that its organizational structure may be understood.
5. Synthesis—The ability to put parts together to form a new whole.
6. Evaluation—The ability to judge the value of material (statement, novel, poem, research report) for a given purpose.

Affective Domain: (Krathwohl, 1964)

1. Receiving—Refers to the student's willingness to attend to particular phenomena or stimuli (classroom activities, textbooks, music, etc.)
2. Responding—Refers to active participation on the part of the student.
3. Valuing—Concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior.

4. Organization—Concerned with bringing together different values, resolving conflicts between them, and beginning the building of an internally consistent value system.
5. Characterization by a Value or Value Complex—Concerned with the pupil's value system that has controlled behavior for a sufficiently long time resulting in a characteristic "life style." Behavior is consistent and predictable.

Psychomotor Domain: (Simpson, 1972)

1. Perception—The process of becoming aware of objects, qualities, or relations by the way of the sense organs.
2. Set—The preparatory adjustments or readiness for a particular kind of action or experience.
3. Guided Response—The overt behavioral act of an individual under the guidance of the instructor.
4. Mechanism—The learned response that has become habitual.
5. Complex Overt Response—A motor act that is considered complex because of the movement pattern required.
6. Adaptation—The altering of motor activities to meet the demands of new problematic situations requiring a physical response.
7. Origination—The creating of new motor acts or ways of manipulating materials.

Determination of Scope

The scope is the content, everything contained within the program. It can be further described as the range, totality, and/or breadth of the program. The content is defined by the program objectives. The dimensions (scope) of the program emerge through the process of formulating program and subject objectives.

Identifying the Sequence

Program objectives and their subject objectives are preceded and followed by other program objectives and their subject objectives. Sequencing is the process of arranging these objectives into a hierarchical pattern which shows the prerequisite relationship among them. Sequencing gives an order of presentation of objectives between grades or within a grade, a program, a subject, or a series of objectives.

The sequence order is determined by a wide variety of learning theories, such as those concerning abilities, interests, experiences, and needs of the students. Consideration should be given to the grade placement of the following types of learning activities:

Readiness—Activities that prepare and provide the foundation of a new idea, skill, or concept.

Introduction—Activities that begin, start, and/or introduce a new idea, skill, or concept.

DEVELOPMENT

Development—Activities that expand and/or enlarge upon an idea, skill, or concept.

Mastery—Activities that reflect idea, skill, or concept proficiency.

Reinforcement—Activities that enhance and provide additional strength and support to an idea, skill, or concept.

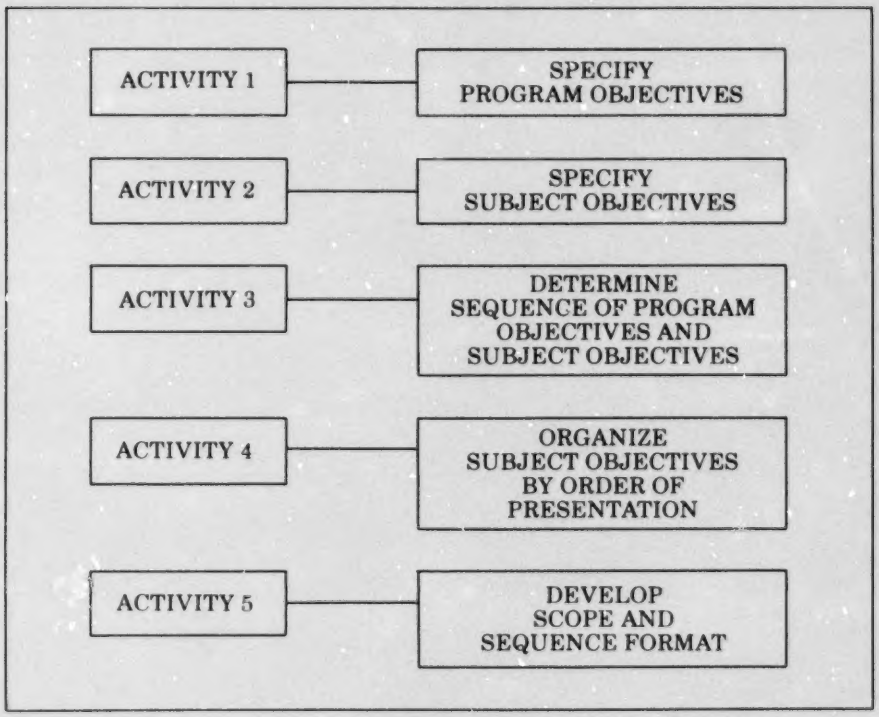
Developing a Scope and Sequence

As school personnel engage in activities designed to develop the scope and sequence of a program, several questions need to be considered.

1. What program objectives can be derived from program goals?
2. What subject objectives can be generated from program objectives?
3. What is the order of difficulty of subject objectives?
4. At what grade levels should readiness, introductory, developmental, mastery, and reinforcement activities be expected?
5. Will a scope and sequence chart be developed?
6. How do the program objectives and the subject objectives compare with the findings of the curriculum review?

A suggested process for developing a scope and sequence consists of five activities. These activities are listed in the model shown below.

FIGURE 7 SCOPE AND SEQUENCE PROCESS MODEL



DEVELOPMENT

Points for consideration and tasks to be performed in each of the five activities are outlined below. These may be modified as required by the needs of the individual school district.

ACTIVITY 1: SPECIFY PROGRAM OBJECTIVES

Purpose of Activity:

This activity involves developing program objectives that are outcome statements derived from program goals.

Points to Consider:

1. The purpose of the program as stated in district and program philosophies.
2. The content of program goals.
3. Ideas that can be generated from program goals.

Tasks to Perform:

1. List ideas generated from each program goal.
2. Decide on ideas to accept.
3. List program objectives.
   - 3.1 Combine.
   - 3.2 Restate.
   - 3.3 Add or delete where needed.
4. Develop program objectives as broad outcome statements.
5. Relate all program objectives to program goals.
6. Make sure all program goals are reflected in the objectives.

ACTIVITY 2: SPECIFY SUBJECT OBJECTIVES

Purpose of Activity:

This activity involves developing subject objectives derived from program objectives.

Points to Consider:

1. The purpose of the program as stated in the philosophy.
2. Contents of program goals and program objectives.
3. The sequential order from philosophy to program goals to program objectives.

Tasks to Perform:

1. Identify the specific subject objectives that can be derived from *each* of the program objectives.
2. List the subject objectives with their corresponding program objectives.
3. Check to see if additional subject objectives need to be developed.
4. Relate all subject objectives to program objectives.
5. Make sure all program objectives are reflected in subject objectives.

DEVELOPMENT

ACTIVITY 3: DETERMINE SEQUENCE OF PROGRAM OBJECTIVES AND SUBJECT OBJECTIVES

Purpose of Activity:

This activity is conducted to examine and determine the order of difficulty of both program objectives and subject objectives so that they can later be placed in a sequential order.

Points to Consider:

1. Comprehensiveness of program objectives.
2. Possible additional subject objectives.

Tasks to Perform:

1. Examine carefully subject objectives and revise where needed.
2. List each program objective and its corresponding subject objectives in a sequential order, e.g., in order of difficulty.
3. Decide on a priority for objectives where two or more are of equal difficulty or importance.
4. Identify methods to be used for organizing objectives.
   4.1 Cut and paste.
   4.2 Use of tape recorder.
5. Review and carefully examine the ordering of objectives.
   5.1 Check for sequence of difficulty.
   5.2 Omit superfluous or repetitive objectives.
   5.3 Check for clear and concise language.

ACTIVITY 4: ORGANIZE THE SUBJECT OBJECTIVES BY ORDER OR PRESENTATION

Purpose of Activity:

This activity is conducted to determine placement of the subject objectives.

Points to Consider:

1. The content of subject objectives.
2. The sequential order of program objectives and subject objectives.
3. The levels of difficulty of subject objectives.

Tasks to Perform:

1. Determine grade level placement for each subject objective.
2. Determine at what grade level—
   2.1 Students are ready to be introduced to the objectives.
   2.2 Students will be exposed to activities that develop ideas, skills, or concepts.
   2.3 Students are expected to master objectives.
   2.4 Students will be exposed to activities that reinforce their mastery of objectives.

DEVELOPMENT

ACTIVITY 5: DEVELOP SCOPE AND SEQUENCE FORMAT

Purpose of Activity:

This activity involves selecting the format for presenting the scope and sequence.

Points to Consider:

1. The identified order of presentation (grade level) for each objective.
2. The identified readiness, introductory, developmental, mastery, and reinforcement levels for each objective.

Tasks to Perform:

1. Determine format to be used to show order or presentation of objectives.
2. Decide if format will be K-12.
3. Complete the scope and sequence according to the selected format.

PUPIL EVALUATION POLICY

The final step in the development of a course of study is the formulation of pupil evaluation policy and selection or development of specific assessment measures. While the *Competency Assessment and Testing* publication addresses evaluation in greater detail, the aspects of pupil evaluation that should be considered in course of study development are highlighted here.

Methods of Assessment

Having established subject objectives, the task is now to determine how to measure attainment of the stated objectives. The objectives should provide the basis for the types of assessments used.

Assessment of learner outcomes may include a variety of methods, such as pencil and paper tests (both essay and short answer), quizzes, projects, written assignments, interviews, rating scales, and observations. Student evaluation, to be effective, must rely on several methods of measuring student attainment of objectives.

The assessment method selected should be that which is most appropriate for evaluation of a specified subject objective. Some objectives are more readily assessed by particular methods than others. For example, in the cognitive domain, attainment of knowledge and comprehension objectives may be readily measured by evaluating student responses to true-false, multiple-choice, and completion questions, while attainment of synthesis and evaluation objectives are more appropriately assessed by evaluating student performance in essays, term-papers, and in-depth discussions. In the psychomotor domain, attainment of objectives can best be evaluated by observing student performance of specified tasks. Attainment of objectives in the affective domain may be measured by attitude inventories, student self-attainment, and teacher observation of student behavior.

DEVELOPMENT

Development of a Pupil Evaluation Policy

The pupil evaluation policy provides a basis for decision making. As such, consideration should be given to the fact that different types of assessments serve different purposes. Three types of assessments and their purposes are briefly discussed in this publication. They are preassessments, formative assessments, and summative assessments.

Preassessments, usually administered prior to instruction, are generally diagnostic in nature and aid teachers in fitting instruction to students' needs. Based on the results of preassessments, teachers can determine where in the sequence of objectives students should be placed and what methods of instruction would be most appropriate to use with students.

Formative assessments are conducted during instruction and help teachers make necessary instructional adjustments. Depending on information gained from formative assessments, teachers may decide to alter instructional materials and methods if students are experiencing difficulties in learning what is being taught.

Summative assessments are made after an appropriate period of instruction and are designed to determine the degree to which students have mastered subject objectives. Those students who have satisfactorily mastered the objectives will move ahead in the sequence of objectives, while intervention will be required for those who have not.

As mandated by Standard 3301-35-02 (B)(1)(a)(vi), "Each course of study shall provide a basis for pupil evaluation." In developing a framework for pupil evaluation, the focus is on the use of summative assessments to measure student attainment of subject objectives. The framework includes an overview of what kinds of summative assessment methods will be matched with which objectives. In addition to this indication of how learner outcomes will be evaluated, the framework prescribes required student attainment levels for various assessments.

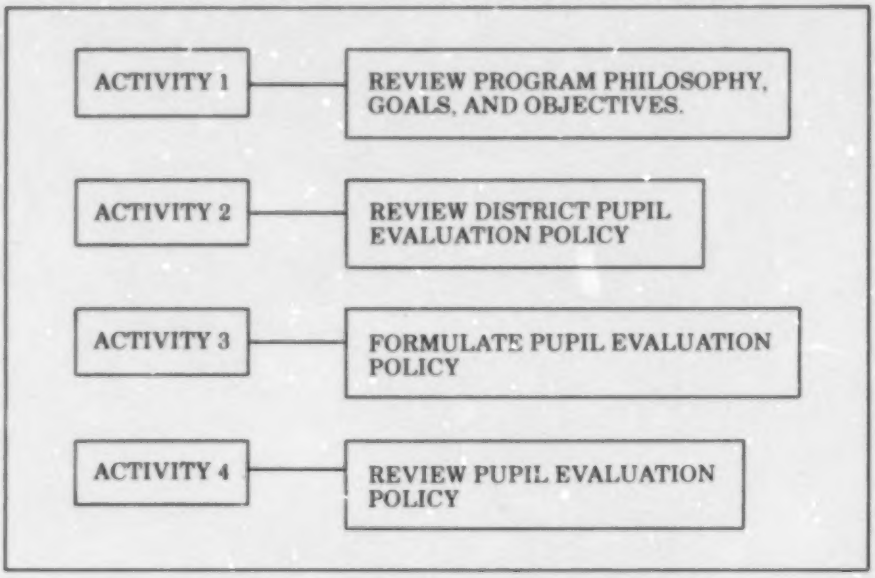
From this framework guidelines are developed to establish criteria on which promotion decisions will be made. Guidelines must be presented in a way which will be clearly understood by parents, students, teachers, and administrators. They should be consistent with educational and program philosophies. Promotion and graduation of students should, therefore, mean that the educational goals of the district have been accomplished.

In the areas in which competency based education programs must be developed (English composition, reading, and mathematics), assessments are also used for purposes other than pupil evaluation and promotion decisions. As stated in Rule 3301-35-02 (B)(2)(c), "Guide-

lines shall be established for the use of assessment results for instruction, evaluation, intervention, guidance, and promotion decisions." In establishing guidelines, all three types of assessments (preassessments, formative, and summative) are used. A determination should be made as to which type of assessment is best suited for which purpose. All three types of assessments can be used in making evaluation, intervention, and guidance decisions; preassessments and formative assessments are used in making instructional decisions; and summative assessments are used in making promotion decisions.

The four activities presented in Figure 8 focus on the development of evaluation policies as they relate to pupil evaluation and promotion decisions. For a more detailed discussion of assessment strategies for instruction and intervention, consult the publication titled *Intervention*. For more information about guidance considerations see *A K-12 Written Guidance Plan*.

FIGURE 8 PUPIL EVALUATION POLICY PROCESS MODEL



Points for consideration and tasks to be performed in each of the four activities are outlined below. These may be modified as required by the needs of the individual school district.

DEVELOPMENT

ACTIVITY 1: REVIEW PROGAM PHILOSOPHY, GOALS AND OBJECTIVES

Purpose of Activity:

This review is necessary to understand the relationship between the pupil evaluation policy and the program philosophy, goals, and objectives.

Point to Consider:

1. Relation of program philosophy, goals, and objectives to the pupil evaluation policy.

Task to Perform:

1. List any aspects of program philosophy, goals, and objectives pertinent to pupil evaluation.

ACTIVITY 2: REVIEW DISTRICT PUPIL EVALUATION POLICY

Purpose of Activity:

This review is conducted so that the pupil evaluation policy for a program will build upon the strengths of existing district policy.

Points to Consider:

1. Strengths and weaknesses of current evaluation policy.
2. Relation of current evaluation methods to newly developed program philosophy, goals, and objectives.

Tasks to Perform:

1. List strengths and weaknesses of current evaluation policies.
2. Identify restrictions district pupil evaluation policy may place on a particular program.

ACTIVITY 3: FORMULATE PUPIL EVALUATION POLICY

Purpose of Activity:

This activity involves the development of guidelines for pupil evaluation.

Points to Consider:

1. Basis on which students will be evaluated (i.e., their progress in attaining program objectives, the degree to which they meet external standards such as national norms, other).
2. Types of assessments to be used.
3. Attainment levels for the assessments.
4. Most appropriate types of test items.
5. Frequency of assessment.
6. Uses of assessment results.

Tasks to Perform:

1. Review subject objectives.
2. Develop or identify assessment measures that appropriately assess each subject objective.
3. Determine attainment level for each assessment measure developed or identified.
4. Determine the frequency of assessment.

ACTIVITY 4: REVIEW PUPIL EVALUATION POLICY

Purpose of Activity:

This review serves to provide consistency between the pupil evaluation policy; the identified philosophies, goals, and objectives; and existing evaluation policies.

Point to Consider:

1. Relation of the pupil evaluation policy with the district philosophy and goals; program philosophy, goals, and objectives; subject objectives; and the district pupil evaluation policy.

Tasks to Perform:

1. Identify any inconsistencies.
2. Correct identified inconsistencies.

COURSE OF STUDY REVIEW PLAN

Rule 3301-35-02 (B)(1)(c) requires a five-year cycle for reviewing courses of study. A plan for review should include a *needs assessment* and a *program evaluation.*

Needs Assessment

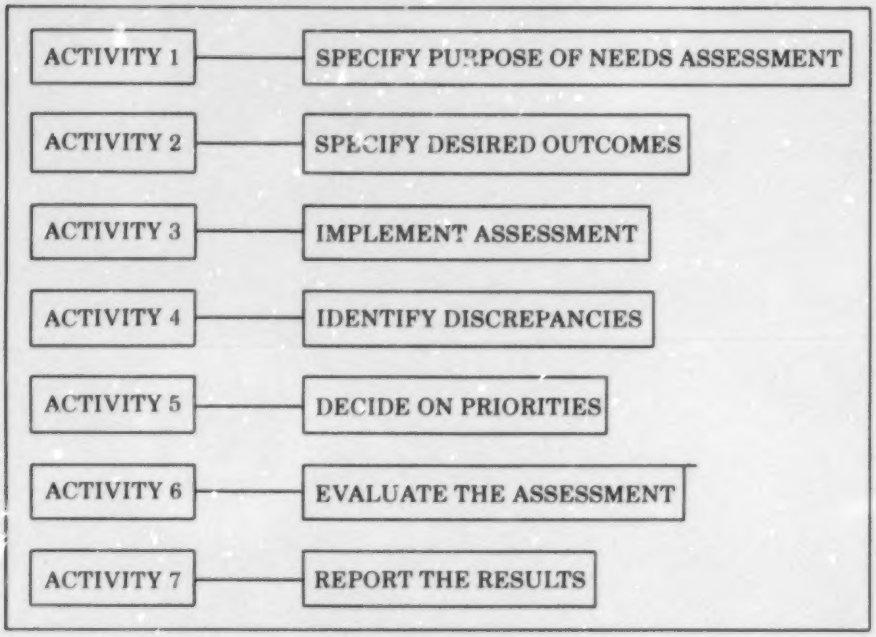
A needs assessment will provide *quantitative* information; that is, it will demonstrate how many identified program needs are being met in the program under review. The process involves establishing a set of outcomes, gathering data indicative of the degree to which those outcomes are being achieved, measuring the discrepancies between the two sets of information, and determining priorities based on the information.

In the framework of the district philosophy and goals, educational needs or priorities for a program should reflect what the community of that district considers important. Information from the community, parents, students, teachers, administrators, and curriculum experts is used to identify program priorities. These priorities may then be assessed to determine whether the program is meeting them. The results will indicate the strengths and weaknesses of the program.

Once the commitment has been made to conduct a needs assessment, it is critical to ensure that the commitment is maintained throughout the assessment process. In order to do this, it is suggested that the district continually inform and involve the community, parents, students, teachers, and administrators. The district's administration should pledge to support changes recommended as a result of the assessment. The recommendations resulting from the assessment must conform to the minimum standards.

Essentially, the assessment process consists of seven major activities and the implementation and management strategies necessary to complete them. These activities and their logical progression in the needs assessment process are outlined in Figure 9.

FIGURE 9 NEEDS ASSESSMENT PROCESS MODEL



Points for consideration and tasks to be performed in each of the seven activities are discussed below. These may be modified as required by the needs of the individual school district.

ACTIVITY 1: SPECIFY PURPOSE OF NEEDS ASSESSMENT

Purpose of Activity:

A decision for determining use of needs assessment is necessary to make the initial steps in the process.

Points to Consider:

1. Use of collected information.
2. Persons who will be involved in the assessment planning.

Tasks to Perform:

1. Secure a commitment of support from board and administration.
2. Provide for active community, parent, teacher, student involvement.
3. Determine how needs assessment information will be used.

ACTIVITY 2: SPECIFY DESIRED OUTCOMES

Purpose of Activity:

The desired results of the needs assessment should be identified.

Points to Consider:

1. The amount of influence of each representative group included in decisions regarding desired results.

2. Sources of information that should be consulted in making decisions.
3. The types of data to be gathered.

Tasks to Perform:

1. Determine whether to use commercially or locally prepared assessment instruments.
2. Decision regarding use of differing instruments to assess different data.
3. Select desired results which reflect program goals.
4. Specify acceptable score for having met each goal.

ACTIVITY 3: IMPLEMENT ASSESSMENT

Purpose of Activity:

Decisions regarding implementation of the needs assessment instruments must be made.

Points to Consider:

1. Whether a sample population will serve the purpose of assessing needs.
2. Decisions to be made regarding dissemination and collection of instruments.

Tasks to Perform:

1. Determine population to be assessed.
2. Specify instruments to solicit information from selected population.
3. Distribute and collect assessment instruments.
4. Make provision for scoring and analysis.
5. Determine how collected information will be used in final interpretation of data.

ACTIVITY 4: IDENTIFY DISCREPANCIES

Purpose of Activity:

The discrepancies (differences) between the results of the needs assessment and the current program goals must be identified.

Points to Consider:

1. Identification of discrepancies.
2. Format for presentation.

Tasks to Perform:

1. Determine assessment scores.
2. Review desired outcomes.
3. Determine discrepancies between assessment scores and desired outcomes.
4. Select vehicle for presentation, e.g., chart, graph, linear description.

DEVELOPMENT

ACTIVITY 5: DECIDE UPON PRIORITIES

Purpose of Activity:

Discrepancy information should assist in determining priorities for program changes.

Points to Consider:

1. Factors other than discrepancy information to be considered in determining priorities.
2. Criteria for choosing which priorities will be acted upon.

Tasks to Perform:

1. Develop methods for ranking goals in priority order.
2. Rank priorities as determined by discrepancy information.
3. Consider ranked priorities in relation to other factors, e.g., economic restraints, staffing patterns, or facilities.
4. Determine which priorities will be incorporated into the review and update of courses of study.

ACTIVITY 6: EVALUATE THE ASSESSMENT

Purpose of Activity:

An evaluation of the needs assessment is necessary to determine validity.

Points to Consider:

1. Criteria for determining assessment validity.
2. Comparison of assessment results with specific purpose and desired outcomes.
3. Recommendations for revising procedures or instruments.

Tasks to Perform:

1. Collect information from assessed population regarding understanding of and attitudes toward the assessment.
2. Compare assessment *results* with previously determined assessment *purpose*.
3. Determine the validity of the needs assessment.

ACTIVITY 7: REPORT THE RESULTS

Purpose of Activity:

The method for sharing the results of the needs assessment must be selected.

Points to Consider:

1. The population receiving information regarding results.
2. Format for reporting results.

Tasks to Perform:

1. Summarize and document collected information.
2. Develop strategies for sharing results, e.g., town meeting, radio, television, special report, or newspapers.
3. Share with decision makers, participants, district community-at-large.
4. Maintain record of results for future action.

DEVELOPMENT

Program Evaluation

A program evaluation will provide *qualitative* information regarding the current program. It is a process whereby a systematic analysis of a program is undertaken in order to determine if it conforms to the minimum standards and whether it adequately specifies and structures program philosophy statements, program goals and objectives, subject objectives, and pupil evaluation policy. In addition, a program evaluation entails an examination of program effectiveness based on student learning outcomes. This latter appraisal centers on ascertaining if a program addresses the interests, meets the needs, enhances the abilities, and increases the achievement of students.

Evaluating a program, then, revolves around three basic activities.

1. Making sure program components identified in this publication are in place.
2. Determining that each program component is appropriately stated and organized.
3. Judging program effectiveness based on student outcomes resulting from measures, assessments, and evaluations that document learning progress and attainment.

Points for consideration and task to be performed in each of the three activities are outlined below. These may be modified as required by the needs of the individual school district.

ACTIVITY 1: COMPARING PROGRAM COMPONENTS TO COURSE OF STUDY CHECKLISTS

Purpose of Activity:

This activity is meant to provide a procedure whereby the conformance of a program to the minimum standards can be assured.

Points to Consider:

1. Minimum Standards for Elementary and Secondary Schools.
2. *Process Model for Course of Study.*
3. A systematic approach to the compilation and submission of course of study materials.

Tasks to Perform:

1. Fill out checklist provided below.

DEVELOPMENT

INDIVIDUAL COURSE OF STUDY CHECKLIST		
Program Course of Study Components	Yes	No
1. Cover Sheet		
*2. Statement of Approval by Board of Education		
3. Table of Contents		
4. Introduction		
**5. District Philosophy and Goals		
6. Program Philosophy		
7. Program Goals		
**8. Scope and Sequence 8.1 Program Objectives		
8.2 Subject Objectives		
**9. Pupil Evaluation Policy		

*Required by the Revised Code.
**Required by the Minimum Standards for Elementary and Secondary Schools.

2. Transfer information from this checklist to district's Composite Course of Study Checklist and Record (Appendix A).

ACTIVITY 2: PERFORMING A PROGRAM EVALUATION

Purpose of Activity:

In this activity decisions are made regarding the continuing usefulness, viability, and adequacy of program components.

Points to Consider:

1. Changes may have occurred over time in original program direction, philosophy, goals, scope and sequence, and pupil evaluation policy.
2. Additions and/or deletions to the original program.
3. Persons who should be responsible for program review and update.
4. How program review and update will be done.
5. The steps followed to evaluate and develop a program are the same.

Task to Perform:

1. Review Chapter Three of this document and follow the steps outlined to develop a course of study as a guide for the program evaluation process.

DEVELOPMENT

ACTIVITY 3: USING STUDENT OUTCOMES IN PROGRAM EVALUATION

Purpose of Activity:

The process of operationalizing the pupil evaluation policy in program evaluation is delineated in this activity. In addition, the steps utilizing student outcome data in program evaluation are specified.

Points to Consider:

1. Relation of student outcomes to program evaluation.
2. The weight attached to student outcomes in the program evaluation process.
3. Kinds of student outcome data that will be used in a program evaluation.
4. Subject objectives attainment as an aspect of program evaluation.

Tasks to Perform:

1. Determine the types of student outcome data to be used in a program evaluation.
2. Compare the established attainment of standards for a program's subject objectives and actual student performance levels.
3. Determine how discrepancies, if any, found in the attainment standards and performance levels should be addressed, i.e., what changes should be made in program goals and objectives and subject objectives.

PUPIL PERFORMANCE OBJECTIVES

CHAPTER FOUR
DEVELOPING PUPIL PERFORMANCE OBJECTIVES

This chapter is intended to be used in the identified areas of English composition, reading, and mathematics in which competency based education programs must be developed. Districts may, at their discretion, develop competency based education in other program areas.

INITIAL STEPS IN DEVELOPING COMPETENCY BASED EDUCATION PROGRAMS

There are several steps involved in developing competency based education programs, the first three of which involve direct use of courses of study. Those steps are described below. Information about the additional steps can be found in the *Competency Assessment and Testing* and *Intervention* publications.

The first step in establishing a competency based education program is the development of the course of study. Information pertaining to the construction of this document has been detailed in Chapter Three.

The second step is to review the subject objectives in order to determine which ones will be included in the competency based education program. This vital determination can be made only after the district has decided whether its program will emphasize selected objectives or all objectives. In the former case the district must review all subject objectives in the course of study and select those considered to be critical, i.e., objectives for which every student must demonstrate mastery. Only the identified critical objectives are part of the competency program. However, in the latter case the district develops a total competency program, with competencies ranging from minimal to optimal. As a result, all subject objectives in the course of study are used in the competency program.

The third step is the development of pupil performance objectives, as required by Rule 3301-35-02 (B)(2)(a). As explained later in this chapter, pupil performance objectives are based on the subject objectives contained in the scope and sequence section of the course of study.

Because pupil performance objectives include the conditions and criterion level for attainment of the stated student behavior/performance, at this point consideration should be given to the variety of assessment methods that can be employed to measure attainment of objectives. It is worth noting that assessment methods selected should be appropriate for the objective to be measured. The "Pupil

PUPIL PERFORMANCE OBJECTIVES

Evaluation Policy" section of Chapter Three in this publication and the *Competency Assessment and Testing* document contain discussions pertinent to the assessment component of a competency based education program.

PUPIL PERFORMANCE OBJECTIVES

Pupil performance objectives and subject objectives each state an observable behavior/performance a student demonstrates when accomplishing an objective. However, pupil performance objectives contain two other components—conditions and criterion level. A subject objective, then, contains a stated behavior/performance, whereas a pupil performance objective contains a stated behavior/performance, conditions and criterion level.

Performance Component

The performance component of an objective describes the behavior a student exhibits to achieve an objective. It is written precisely and is measurable. An action verb represents the statement of behavior/performance in a subject or pupil performance objective. A general classification scheme of these performance terms consists of six verbs under which nearly all learner behaviors can be categorized. These verbs are as follows:

1. Identify (select, distinguish between, classify, discriminate between, match).
2. Name (label, list, state, give).
3. Describe (define, tell how, tell what happens when, explain).
4. Construct (prepare, draw, make, build).
5. Order (arrange in order, sequence, list in order).
6. Demonstrate (show your work, show the procedure, perform an experiment, perform the steps).

In addition to these action verbs are those which apply to particular subject areas. Objective verbs such as spell, read, write, add, etc., are examples of such action words.

Condition Component

The condition component of a pupil performance objective outlines the circumstances under which the student will be required to perform a task or use a skill. This portion of the objective describes one or more of the following:

1. What equipment, supplies, or materials the student will be given to work with;
2. What materials the student will be denied access to;
3. What setting the performance must be demonstrated in;
4. What information the student may be provided that will direct the action in a certain way; and/or
5. What amount of time will be allowed for the performance to be accomplished.

PUPIL PERFORMANCE OBJECTIVES

Criterion Component

The criterion component of a pupil performance objective describes the level of mastery or degree of proficiency that must be reached in carrying out the performance—in other words, how well the student must be able to do a task or use a skill. The criterion tells the student (and teacher) what level or standard of performance is required in order for the objective to be achieved. This component of the objective is probably the most difficult to write; but once done, it also provides information necessary for planning how to evaluate student performance. There are several ways in which the criterion may be established, including: (1) accuracy within a tolerance limit, (2) speed, (3) percent or number to be achieved, (4) reference to other material which identifies specific criteria, (5) maximum number of permissible errors, (6) degree of excellence, or (7) any combination of these criteria.

Writing Pupil Performance Objectives

Writing pupil performance objectives is an activity that requires an examination of subject objectives in light of modifications needed to restate them as pupil performance objectives. Following is a compilation of activities designed to aid school district personnel in writing pupil performance objectives. Points for consideration and tasks to be performed in each of the activities are outlined below. These may be modified as required by the needs of the individual school district.

ACTIVITY 1: IDENTIFY SUBJECT OBJECTIVES FOR INCLUSION IN COMPETENCY BASED EDUCATION PROGRAM

Purpose of Activity:

This activity deals with the process of analyzing and identifying subject objectives that will become pupil performance objectives.

Points to Consider:

1. The direct relationship between subject objectives and pupil performance objectives.
2. Statements of student behaviors to be included in subject objectives.

Tasks to Perform:

1. Specify those subject objectives which will become pupil performance objectives.
2. Make certain that the behavior stated in each subject objective is measurable.

ACTIVITY 2: DEVELOP PUPIL PERFORMANCE OBJECTIVES

Purpose of Activity:

In this activity the process of determining appropriate conditions and criterion levels for subject objectives is considered in order to convert them to pupil performance objectives.

PUPIL PERFORMANCE OBJECTIVES

Points to Consider:

1. Writing pupil performance objectives in precise and measurable terms.
2. Appropriate methods and devices to measure student achievement of pupil performance objectives.

Tasks to Perform:

1. Specify the appropriate condition and criterion level statements that should be incorporated in each subject objective. See Appendix H for sample statements.
2. Rewrite each subject objective as a pupil performance objective. See Appendix E for examples of subject objectives expanded into pupil performance objectives.

APPENDIX A

COMPOSITE COURSE OF STUDY CHECKLIST AND RECORD

COURSE OF STUDY COMPONENTS	PROGRAMS																	
	ART	BUSINESS EDUCATION	FOREIGN LANGUAGE	HEALTH	INDUSTRIAL ARTS	LANGUAGE ARTS	MATHEMATICS	MUSIC	PHYSICAL EDUCATION	SCIENCE	SOCIAL STUDIES	OTHER						
COVER SHEET																		
INDICATION OF BOARD APPROVAL																		
TABLE OF CONTENTS																		
INTRODUCTION																		
DISTRICT PHILOSOPHY AND GOALS																		
PROGRAM PHILOSOPHY																		
PROGRAM GOALS																		
SCOPE AND SEQUENCE: PROGRAM OBJECTIVES																		
SUBJECT OBJECTIVES																		
PUPIL EVALUATION POLICY																		
DATE SUBMITTED TO DEPARTMENT OF EDUCATION																		
DATE STATE APPROVAL GRANTED																		

APPENDIX B

SELF-APPRAISAL CHECKLISTS

The following Department of Education publications may be used in conducting the curriculum review:

A Self-Appraisal Checklist For:

- Art in Ohio's Elementary Schools
- Art in Ohio's Secondary Schools
- Economic Education in Ohio's Schools (K-12)
- English Language Arts in Ohio's Elementary Schools
- English Language Arts in Ohio's Secondary Schools
- Foreign Languages in Ohio's Secondary Schools
- Industrial Arts in Ohio's Schools
- Instructional Television in Ohio's Schools
- Intramurals in Ohio's Elementary and Secondary Schools
- Kindergarten in Ohio's Schools
- Library/Media Programs in Ohio Schools (K-12)
- Mathematics in Ohio's Elementary Schools
- Mathematics in Ohio's Secondary Schools
- Music Education in Ohio's Elementary Schools
- Music Education in Ohio's Secondary Schools
- Nutrition Education in Ohio Schools (K-12)
- Physical Education in Ohio's Elementary Schools
- Physical Education in Ohio's Secondary Schools
- Reading in Ohio's Schools
- School Health Programs
- Science in Ohio's Elementary Schools
- Science in Ohio's Secondary Schools
- Social Studies in Ohio's Elementary Schools
- Social Studies in Ohio's Secondary Schools

The publications are available at no cost from:

Ohio Department of Education
Division of Elementary and Secondary Education
Room 1035
65 South Front Street
Columbus, OH 43215

APPENDIX C

MATERIALS AND RESOURCES

A listing of materials and sources of technical assistance for the following topics:

Educational Equity:

- Anti-Defamation League of B'nai Brith (materials)
  1175 College Avenue, Columbus, OH 43209
- Division of Equal Educational Opportunities (materials)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publications—
  Multi-Cultural Sexism-Free Materials—A Guide to the Selection of Multi-Ethnic and Sexism-Free Curriculum Materials for Schools in a Pluralistic Society
  Providing K-12 Multi-Cultural Curricular Experiences, Revised, 1978.
- Guidance and Testing Services (materials and technical assistance)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publications—
  Reducing Career Barriers Resulting From Sex Role Stereotyping (Project Massive)
  Self-Administered Survey of Sex Stereotypes for Project Massive
- KEDS Desegregation Assistance Center (materials and technical assistance)
  Kent State University, Kent, OH 44240
- Office of Sex Equity (materials and technical assistance)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215

Career Education:

- Division of Vocational Education (materials and technical assistance)
  Career Developmental Service
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
- Guidance and Testing Services (materials and technical assistance)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publications—
  Ohio's Group Guidance Curriculum K-Adult
  Ohio's Career Guidance Program K-Adult
  Reducing Career Barriers Resulting From Sex Role Stereotyping (Project Massive)

Citizenship:

- Citizenship Development Program (materials and technical assistance)
  Mershon Center
  199 West 10th Avenue, Columbus, OH 43201
- Division of Elementary and Secondary Education (technical assistance)
  Social Studies K-12
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
- Office of Inservice Education (materials)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publications—
  Making Political Decisions
  Social Responsibility: A Teachable Skill

Energy and Resource Conservation Education

- Division of Elementary and Secondary Education (materials and technical assistance)
  Environmental Education
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publications—
  Environmental Education: Occasional Papers #1-7
- Office of Inservice Education (materials)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publications—
  Energy: A Teacher's Introduction to Energy and Energy Conservation (1975)—Elementary and Secondary booklets

Human Relations:

- Anti-Defamation League of B'nai Brith—Regional Office (materials)
  1175 College Avenue, Columbus, OH 43209
- Heart of Instruction Series (materials)
  Ohio State University
  Curriculum Materials Services, Room 254
  2120 Fyffe Road, Columbus, OH 43210
- Human Relations Division
  Cleveland Public Schools
  Max Hayes Annex
  4600 Detroit Avenue, Cleveland, OH 44102
- KEDS Desegregation Assistance Center (materials and technical assistance)
  Kent State University
  Kent, OH 44240
- Office of Inservice Education (materials)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215
  Publication—
  Social Responsibility: A Teachable Skill
- National Education Association (materials)
  Human and Civil Rights Division
  1201-16th Street, N.W., Washington, D.C. 20036

APPENDIX C

- Staff Development/Human Relations Department (materials and technical assistance)
  Columbus Public Schools
  West Mound Service Center
  2051 West Mound Street, Columbus, OH 43223

Multicultural Education:

- Anti-Defamation League of B'nai Brith—Regional Office (materials)
  1175 College Avenue, Columbus, OH 43209
- Division of Equal Educational Opportunities (materials)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215

  Publications—

  Multi-Cultural Sexism-Free Materials—A Guide to the Selection of Multi-Ethnic and Sexism-Free Curriculum Materials for Schools in a Pluralistic Society

  Providing K-12 Multi-Cultural Curricular Experiences, Revised, 1978.
- Human Relations Division (materials)
  Cleveland Public Schools
  Max Hayes Annex
  4600 Detroit Avenue, Cleveland, OH 44102
- KEDS Desegregation Assistance Center (materials and technical assistance)
  Kent State University, Kent, OH 44240
- National Education Association (materials)
  Human and Civil Rights Division
  1201-16th Street, N.W., Washington, D.C. 20036
- Program Consultation Department (materials)
  Columbus Public Schools
  270 East State Street, Columbus, OH 43215

Study Skills:

- Block Grant and Basic Skills (materials and technical assistance)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215

  Publication—

  Teaching Teen Reading Series—Book 9—Study Skills
- Guidance and Testing Services (materials and technical assistance)
  Ohio Department of Education
  65 South Front Street, Columbus, OH 43215

  Publication—

  Assessing and Teaching Test Taking Skills
- Heart of Instruction Series
  Ohio State University
  Curriculum Materials Services, Room 254
  2120 Fyffe Road, Columbus, OH 43210
- Ohio Educational Library Media Association
  40 South Third Street, Suite 230
  Columbus, OH 43215

  Publication—

  The Ohio Library Media and Information Skills Course of Study, K-12.

APPENDIX D

SAMPLE PROGRAM PHILOSOPHY STATEMENTS

The following philosophy statements are presented as samples of statements developed in three programs.

ART

The growing complexity of our contemporary culture, including its visual aspects, requires of every student a capacity for visual discrimination and judgment that Visual Art provides.

Visual Art in the school is both a body of knowledge and a series of specific activities that are organized to provide unique educational experiences. The sequence and depth of these experiences are determined by the nature of the art discipline, the objectives desired, and by the interest, abilities and needs of students at different levels of growth. When the student produces works of art and contemplates them, it helps him/her to understand the world around through individual interpretation and expression. Visual Art is a means whereby students give form to ideas and feelings, and gain personal development through individual accomplishments.

Society has used Visual Art to build and enrich the environment. Art experiences help the student to understand the visual qualities of these experiences, help the student to understand the visual qualities of these environments and lead to the desire and ability to improve them. Visual Art emphasizes the ability to make visual judgments that help the student to share in the responsibility for improving dimensions of personal and community living.

Art heritage contains a record of the achievement of mankind, since the value and beliefs of a people are uniquely manifested in the art forms they produce. A critical examination and knowledge of these forms leads to a better understanding of both past and present cultures.

In summary, if we trace back through the web of reasons for engaging in a simple art activity, we eventually find those fundamental values or core beliefs which undergird all of education. In our society we have created schools and provide general education for three overarching purposes: to foster personal development, to transmit the cultural heritage, and to improve the social order.

LANGUAGE ARTS

Language is the symbolic structure for the thinking process and is a practical tool for reasoning and expression. For these reasons language arts is a most important program in the curriculum. Study of the English language reveals its intrinsic beauty, richness, variety, and continual growth. Formal study should commence at the kindergarten level and continue through grade twelve.

Language arts instruction is concerned with the development of skills in the use of the English language so that human beings may communicate effectively. The English language arts involve reading, composition, speaking, listening and viewing skills. These skills must be integrated; the mastery of one is dependent upon the mastery of the others. Literacy is essential to earning a living and to being an effective community member. Study of language and its literature is a humane discipline involving the development of values, the engagement of affective responses, and the encouragement of creative and original thought.

Effective language arts instruction requires that skills be taught in a context of experiences having meaning to students. Teachers should recognize the limited background of experiences that some students bring to the classroom, adapt methods to meet their learning needs, and provide appropriate experiences for these students.

The language arts program should establish itself as the foundation for all learning. Continuing evaluation should ensure its relevance and success.

BUSINESS EDUCATION

We believe Business Education provides an opportunity for students to develop personal-use skills, to attain occupational competence and to establish a foundation for career choices. Individual needs of students are met through the variety of course offerings.

We believe that the personal-use skills developed in Business Education provide students with the skills, attitudes, and knowledge to function in a changing society.

Occupational competencies are developed through Business Education courses and refined through supervised work experience.

We believe that students should have an opportunity to discover career opportunities, to interact with others, and to develop positive personal qualities and attitudes which help one adjust socially for a happy, productive life in the world of work.

APPENDIX E

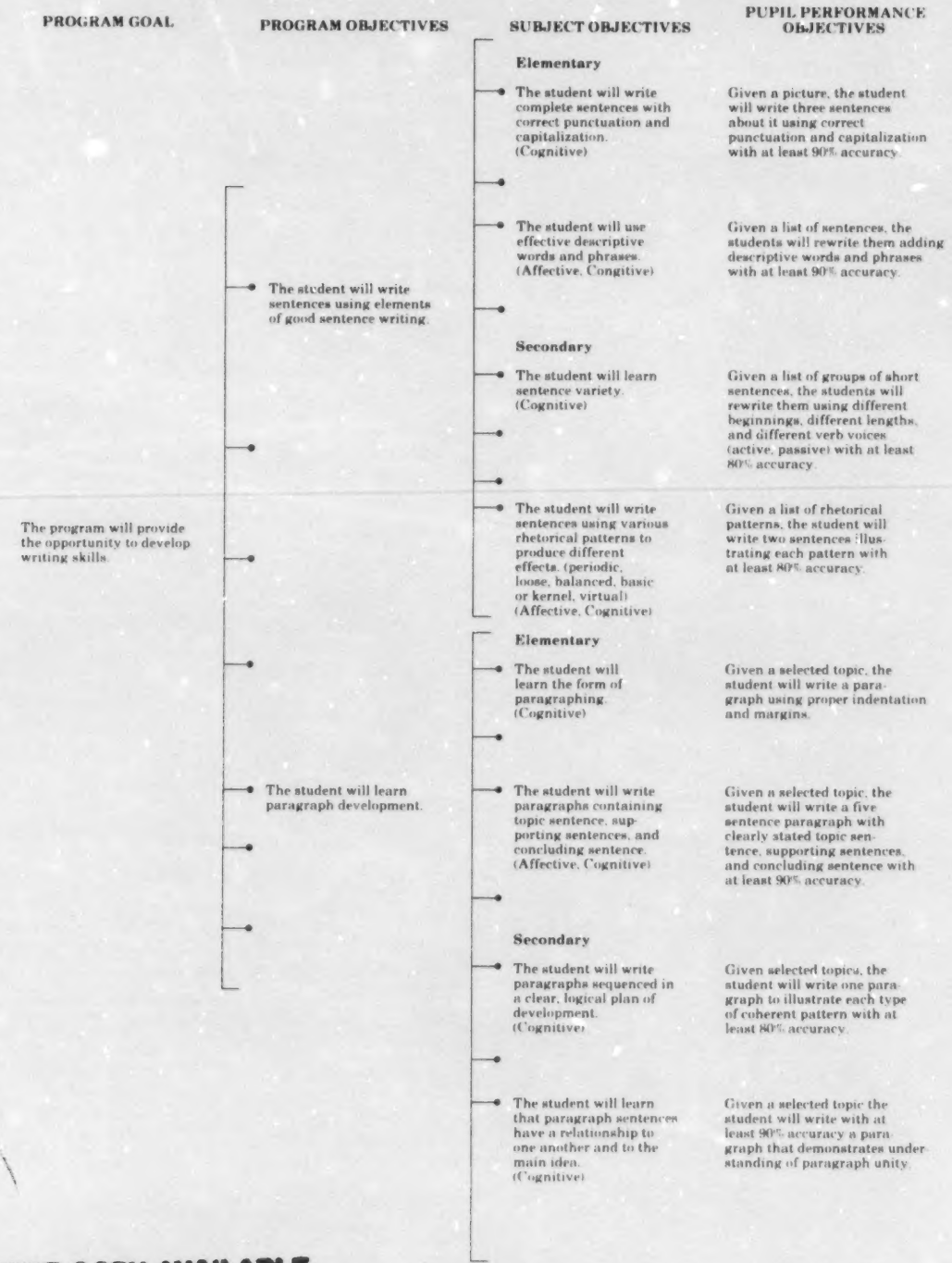
SAMPLE PROGRAM GOALS, PROGRAM OBJECTIVES, SUBJECT OBJECTIVES, AND PUPIL PERFORMANCE OBJECTIVES

The examples presented in this appendix are designed to demonstrate the interrelationship of program goals, program objectives, and subject objectives for several programs as demonstrated for science in Chapter Three. In the areas of reading, writing, and mathematics, examples of pupil performance objectives are presented. It should be noted that the pupil performance objectives are expanded forms of the subject objectives.

There is a presentation of objectives in different forms for illustrative purposes. For example, some pupil performance objectives are presented with a criterion for attainment expressed as a ratio (i.e., 8 out of 10), while others are expressed as percentages (i.e., 80 percent).

APPENDIX E

LANGUAGE ARTS—ENGLISH COMPOSITION


PROGRAM GOAL
PROGRAM OBJECTIVES
SUBJECT OBJECTIVES
PUPIL PERFORMANCE OBJECTIVES
The program will provide the opportunity to develop writing skills.
The student will write sentences using elements of good sentence writing.
The student will learn paragraph development.
Elementary
The student will write complete sentences with correct punctuation and capitalization. (Cognitive)
Given a picture, the student will write three sentences about it using correct punctuation and capitalization with at least 90% accuracy.
The student will use effective descriptive words and phrases. (Affective, Congitive)
Given a list of sentences, the students will rewrite them adding descriptive words and phrases with at least 90% accuracy.
Secondary
The student will learn sentence variety. (Cognitive)
Given a list of groups of short sentences, the students will rewrite them using different beginnings, different lengths, and different verb voices (active, passive) with at least 80% accuracy.
The student will write sentences using various rhetorical patterns to produce different effects. (periodic, loose, balanced, basic or kernel, virtual) (Affective, Cognitive)
Given a list of rhetorical patterns, the student will write two sentences illustrating each pattern with at least 80% accuracy.
Elementary
The student will learn the form of paragraphing. (Cognitive)
Given a selected topic, the student will write a paragraph using proper indentation and margins.
The student will write paragraphs containing topic sentence, supporting sentences, and concluding sentence. (Affective, Cognitive)
Given a selected topic, the student will write a five sentence paragraph with clearly stated topic sentence, supporting sentences, and concluding sentence with at least 90% accuracy.
Secondary
The student will write paragraphs sequenced in a clear, logical plan of development. (Cognitive)
Given selected topics, the student will write one paragraph to illustrate each type of coherent pattern with at least 80% accuracy.
The student will learn that paragraph sentences have a relationship to one another and to the main idea. (Cognitive)
Given a selected topic the student will write with at least 90% accuracy a paragraph that demonstrates understanding of paragraph unity.

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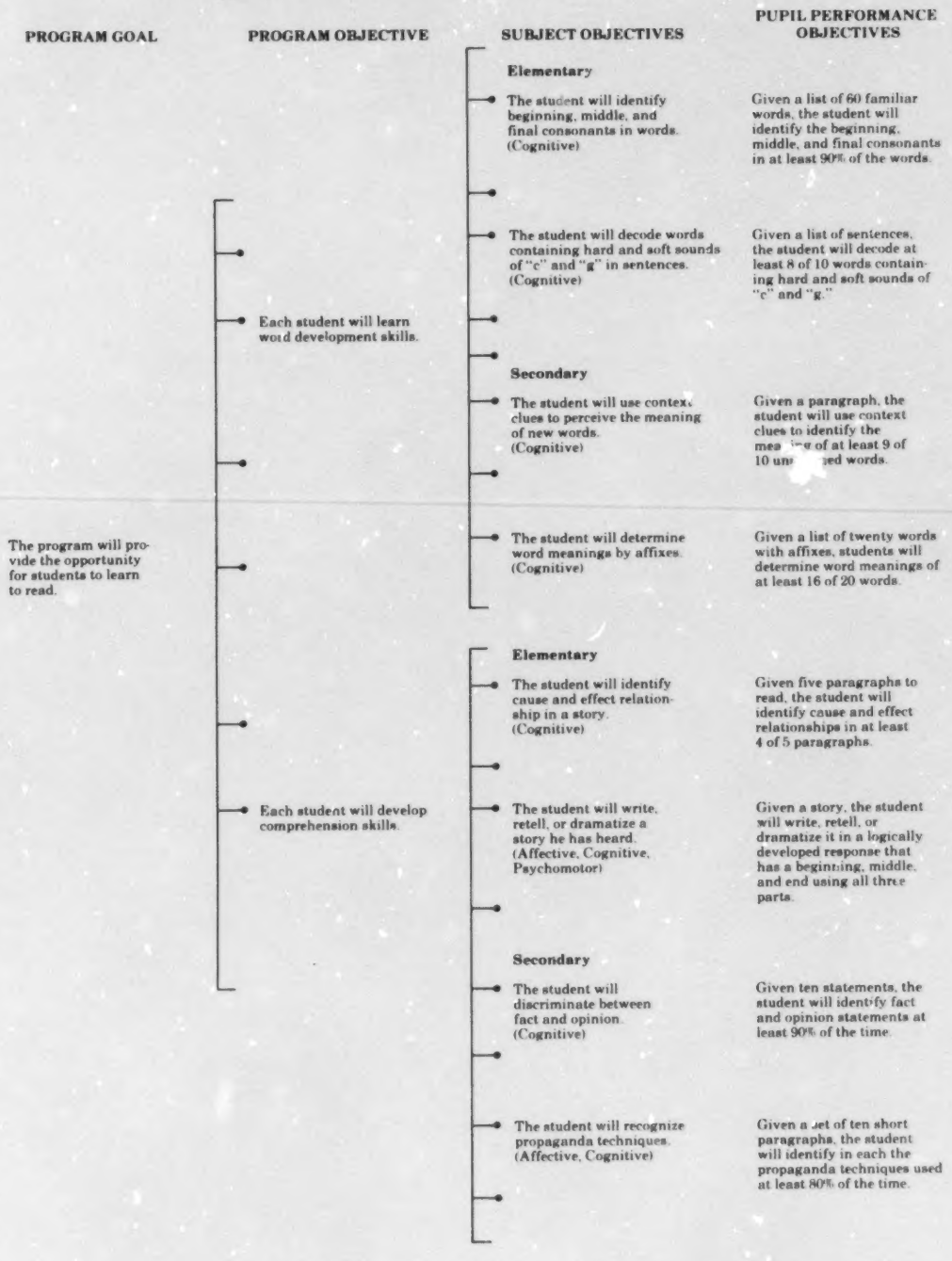
APPENDIX E

LANGUAGE ARTS—READING


PROGRAM GOAL
PROGRAM OBJECTIVE
SUBJECT OBJECTIVES
PUPIL PERFORMANCE OBJECTIVES
The program will provide the opportunity for students to learn to read.
Each student will learn word development skills.
Each student will develop comprehension skills.
Elementary
The student will identify beginning, middle, and final consonants in words. (Cognitive)
Given a list of 60 familiar words, the student will identify the beginning, middle, and final consonants in at least 90% of the words.
The student will decode words containing hard and soft sounds of "c" and "g" in sentences. (Cognitive)
Given a list of sentences, the student will decode at least 8 of 10 words containing hard and soft sounds of "c" and "g."
Secondary
The student will use context clues to perceive the meaning of new words. (Cognitive)
Given a paragraph, the student will use context clues to identify the meaning of at least 9 of 10 underlined words.
The student will determine word meanings by affixes. (Cognitive)
Given a list of twenty words with affixes, students will determine word meanings of at least 16 of 20 words.
Elementary
The student will identify cause and effect relationship in a story. (Cognitive)
Given five paragraphs to read, the student will identify cause and effect relationships in at least 4 of 5 paragraphs.
The student will write, retell, or dramatize a story he has heard. (Affective, Cognitive, Psychomotor)
Given a story, the student will write, retell, or dramatize it in a logically developed response that has a beginning, middle, and end using all three parts.
Secondary
The student will discriminate between fact and opinion. (Cognitive)
Given ten statements, the student will identify fact and opinion statements at least 90% of the time.
The student will recognize propaganda techniques. (Affective, Cognitive)
Given a set of ten short paragraphs, the student will identify in each the propaganda techniques used at least 80% of the time.

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APPENDIX E

MATHEMATICS

PROGRAM GOAL	PROGRAM OBJECTIVES	SUBJECT OBJECTIVES	PUPIL PERFORMANCE OBJECTIVES
Students will make and use measurements.	Students will use measurement tools.	**Elementary**	
		The student will make linear metric measurements. (Cognitive, Psychomotor)	The student will make linear metric measurements of given objects to the nearest unit of the measuring device at least 8 out of 10 times.
		The student will tell time. (Cognitive)	Given pictures of clocks, the student will tell time to the nearest minute with at least 80% accuracy.
		Secondary	
		The student will use a protractor to measure angles. (Cognitive, Psychomotor)	Given a set of angles, the student will measure them using a protractor with at least 80% accuracy.
		The student will use indirect measurement techniques to calculate dimensions. (Cognitive, Psychomotor)	The student will use indirect measurement techniques to calculate the appropriate dimensions of given objects to the nearest unit of the measuring scale employed with at least 75% accuracy.
	Students will make judgments concerning accuracy and precision.	**Elementary**	
		The student will choose appropriate measurement instruments. (Cognitive)	Given a choice of measurement instruments, the student will choose the most appropriate instrument to measure given objects and distance with 100% accuracy.
		The student will determine lengths. (Cognitive, Psychomotor)	Given a primary ruler, the student will determine the length of given line segments to the nearest half inch with at least 80% accuracy.
		Secondary	
		The student will determine the relative error of measurements. (Cognitive, Psychomotor)	Given an object 1 to 12 inches long and a ruler, the student will measure the object and determine the relative error of measurement using the formula for relative error with at least 80% accuracy.
		The student will compute areas using rules for significant digits. (Cognitive)	Given the dimensions of a rectangle to 1 decimal place, the student will compute the area using the rules for significant digits and report the area to the correct decimal place with at least 75% accuracy.

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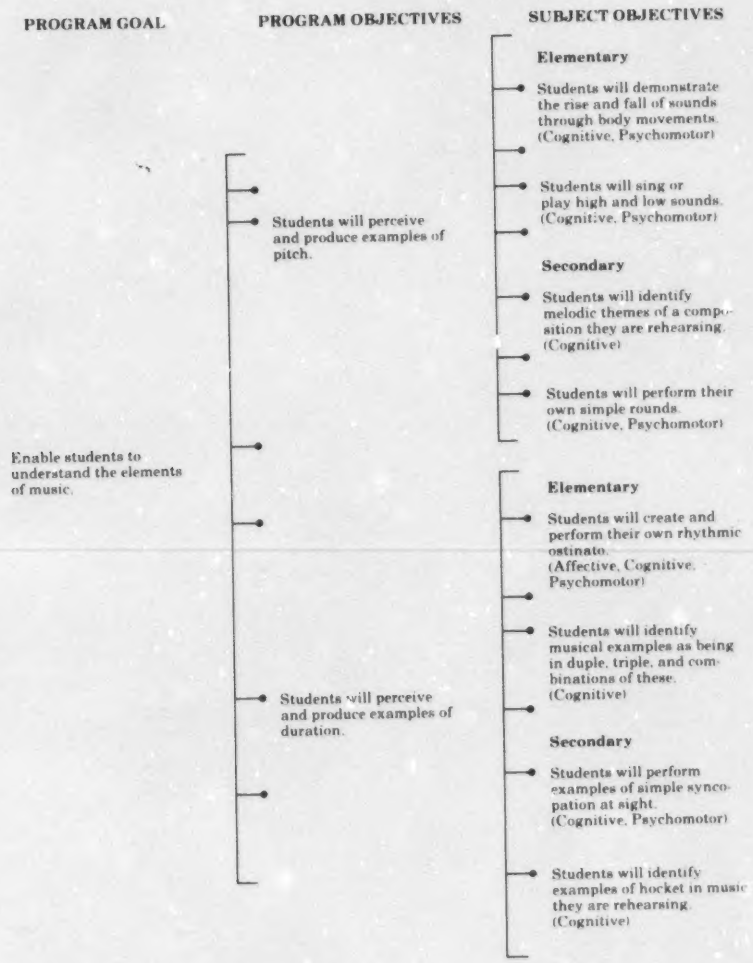
APPENDIX E

MUSIC


PROGRAM GOAL
PROGRAM OBJECTIVES
SUBJECT OBJECTIVES
Enable students to understand the elements of music.
Students will perceive and produce examples of pitch.
Students will perceive and produce examples of duration.
Elementary
Students will demonstrate the rise and fall of sounds through body movements. (Cognitive, Psychomotor)
Students will sing or play high and low sounds. (Cognitive, Psychomotor)
Secondary
Students will identify melodic themes of a composition they are rehearsing. (Cognitive)
Students will perform their own simple rounds. (Cognitive, Psychomotor)
Elementary
Students will create and perform their own rhythmic ostinato. (Affective, Cognitive, Psychomotor)
Students will identify musical examples as being in duple, triple, and combinations of these. (Cognitive)
Secondary
Students will perform examples of simple syncopation at sight. (Cognitive, Psychomotor)
Students will identify examples of hocket in music they are rehearsing. (Cognitive)

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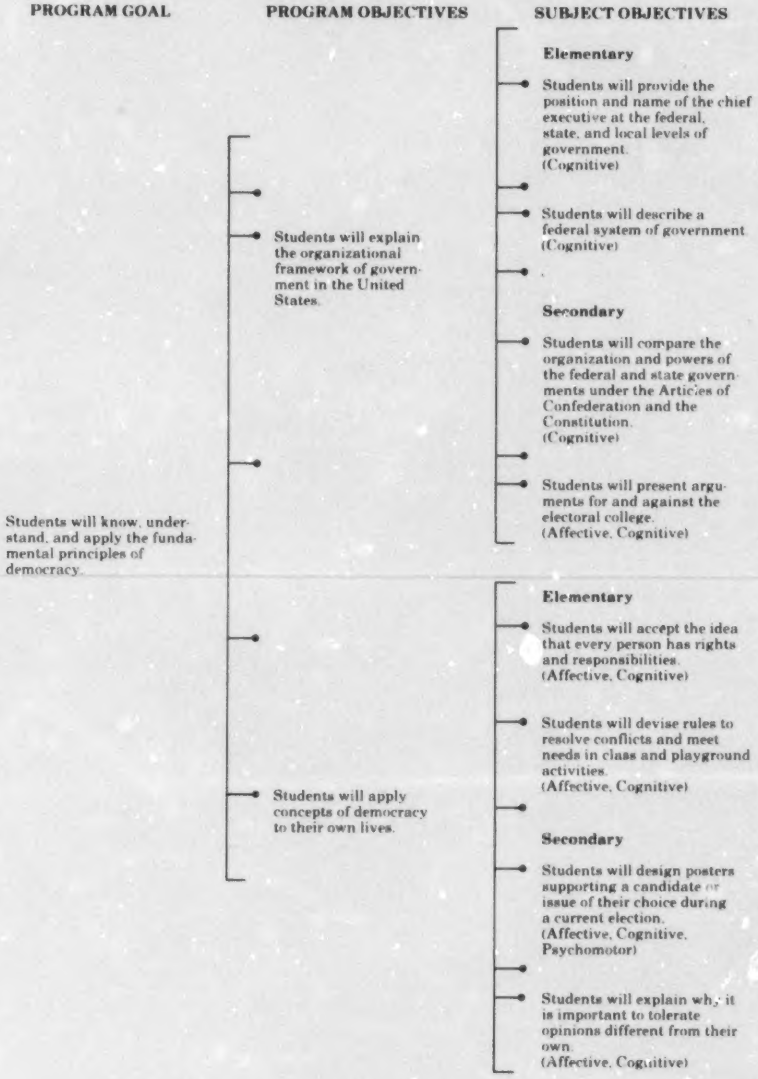
APPENDIX E

SOCIAL STUDIES


PROGRAM GOAL
PROGRAM OBJECTIVES
SUBJECT OBJECTIVES
Students will know, understand, and apply the fundamental principles of democracy.
Students will explain the organizational framework of government in the United States.
Students will apply concepts of democracy to their own lives.
Elementary
Students will provide the position and name of the chief executive at the federal, state, and local levels of government. (Cognitive)
Students will describe a federal system of government. (Cognitive)
Secondary
Students will compare the organization and powers of the federal and state governments under the Articles of Confederation and the Constitution. (Cognitive)
Students will present arguments for and against the electoral college. (Affective, Cognitive)
Elementary
Students will accept the idea that every person has rights and responsibilities. (Affective, Cognitive)
Students will devise rules to resolve conflicts and meet needs in class and playground activities. (Affective, Cognitive)
Secondary
Students will design posters supporting a candidate or issue of their choice during a current election. (Affective, Cognitive, Psychomotor)
Students will explain why it is important to tolerate opinions different from their own. (Affective, Cognitive)

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APPENDIX F

SAMPLE SCOPE AND SEQUENCE FORMATS

This appendix contains three sample formats used by school districts in Ohio for presenting scope and sequence. Each format has particular advantages. The format used in the French III example clearly shows the correlation between program goals, program objectives, and subject objectives. The Physical Education example provides the teacher with much useful information such as the objectives, procedures, resources, and evaluation methods. It should be noted that this format contains components found in an instructional guide, specifically, procedures and resources. Together with the course of study components, a useful curriculum guide is developed. The Language Arts example, the two page matrix, demonstrates the articulation of objectives across grade levels and subjects. In addition, it clarifies the skill level of the objectives at each grade level or subject.

The formats presented can be used with any program area. Districts should consider the advantages of consistency in format across programs when developing courses of study. This is helpful to classroom teachers. The formats presented are examples only and are not prescriptive; districts may develop other formats for presenting scope and sequence.

FRENCH III

PROGRAM GOALS	PROGRAM OBJECTIVES	SUBJECT OBJECTIVES
	Students...	Students...
Students learn and apply basic reading skills.	1 read and comprehend both orally and silently	1a apply all previously learned reading skills
		1b read, define, and use third year vocabulary words
		1c read textbook selections with correct comprehension
		1d use literary selections as a means of understanding societal problems
		1e read and comprehend literally and connotatively non-textbook materials such as newspapers, magazines, and other periodicals
		1f increase comprehension by focusing on verb, noun, and adjective meaning
	2 read and use critical thinking skills	2a give opinions concerning likes and dislikes of a reading selection
		2b select passages from a selection to support views on plot and theme

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APPENDIX F

PHYSICAL EDUCATION

PROGRAM OBJECTIVE

9.0 Develop the proper execution of skills in soccer and comprehend the cognitive aspects of a game situation.

SUBJECT OBJECTIVES	PROCEDURES	RESOURCES	EVALUATION
Students will be able to:			
9.1 Accompish the basic techniques involved in soccer: blocking, passing, trapping, dribbling, tackling, punting, and drop kicking.	9.1a Teacher will set up various drills for the skills of soccer to concentrate on individual skill development.	9.1 Teacher will distribute handouts on offensive and defensive plays for students to study.	9.1 Teacher Observation.
	9.1b Teacher will demonstrate, with assistance from gym-leaders, the proper execution of each skill.		
9.2 Develop strategies and plays.	9.2 Teacher will provide students with time to develop team plays for handout sheets provided.	9.2 Teacher will distribute handouts on offensive and defensive plays for students to study.	9.2 Teacher Observation.
9.3 Differentiate between offensive and defensive skills used in soccer.	9.3 Teacher will set up plays to help students incorporate offensive and defensive skills.	9.3 Teacher distributes handouts.	9.3 Teacher Observation.
9.4 List basic rules and strategies and perform with at least 75% accuracy on a written test.	9.4 Teacher will test students on knowledge obtained.	9.4 Physical Education Task Pak; Leaf, Carnes, Lakrajsek, 1976.	9.4 Written Test.
9.5 Participate in a game situation, apply learned skills, rules and strategies.	9.5 Teacher will set up game situation to provide students with the opportunity to practice skills in a game situation. Scores will be kept and recorded.	9.5 Game statistics and standings will be recorded by teacher.	9.5 Skill Test. Teacher Observation.

PROGRAM GOAL: LISTENING SKILLS

PROGRAM OBJECTIVES:

A. Develops perception skills related to listening
B. Listens in order to understand that which was stated
C. Listens in order to interpret ideas not directly stated
D. Listens in order to evaluate a spoken message
E. Appreciates listening as a worthwhile experience
F. Listens with openness and responsiveness

Skill Levels:

I - Introduce
D - Develop
M - Mastery
R,* - Reinforce

GRADE LEVEL

SUBJECT OBJECTIVES:	K	1	2	3	4	5	6	7	8	Freshman English	Themes & Essays	American Lit.	Senior Seminar
A. AUDITORY DISCRIMINATION													
A1. Distinguishes intensity, pitch, tone, and duration	I/D	D	M	R	*								
A2. Distinguishes patterns of rhythm	I	D	D	M	R	*	*	*	*				
A3. Identifies environmental sounds	I/D	D	M	R	*	*	*	*	*				
A4. Identifies rhyming words	I	D	M	R	*	*	*	*	*				
A5. Hears and reproduces beginning consonant sounds	I	I/D	M	R	*	*	*	*	*				
A6. Repeats oral sentence patterns	I	D	M	R									
A7. Repeats sequential patterns in numbers and words	I	D	D	M	R								
A8. Distinguishes consonant blends		I	D	D	M	R	*	*	*				
A9. Hears and reproduces medial consonant sounds		I	D	D	M	R							
A10. Hears and reproduces final consonant sounds		I	D	D	M	R							
A11. Distinguishes the long vowel sounds		I	D	D	M	R							
A12. Distinguishes the short vowel sounds		I	D	D	M	R							
A13. Distinguishes the consonant digraphs		I	D	D	M	R							
A14. Distinguishes r-controlled vowels		I	D	D	D	M	R						
A15. Distinguishes diphthongs			I	D	D	M	R						

APPENDIX F

B. LITERAL COMPREHENSION	K	1	2	3	4	5	6	7	8	Freshman English	Themes & Essays	American Lit.	Senior Seminar
B1. Follows simple directions	I	D	D	M	R								
B2. Identifies the main idea	I	D	D	D	M	R	•	•	•	•	•	•	•
B3. Identifies details to answer questions	I	D	D	D	D	M	R	•	•	•	•	•	•
B4. Identifies pairs of words read aloud as synonyms or antonyms		I	D	D	D	M	R	•	•	•			
B5. Identifies the parts of a sentence that answer the questions who, what, when, where, and why			I	D	M	R	•						
B6. Arranges the events chronologically in a narration				I	D	M	R	•					
B7. Identifies signal words in directions					I	D	D	M	R	•			
B8. Responds with pertinent information to questions				I	D	D	D	M	R	•	•	•	•
B9. Follows complex directions				I	D	D	D	M	R	•	•	•	•
B10. Defines literal meanings of words from spoken context				I	D	D	D	M	R	•	•	•	•
B11. Understands the meanings inherent in American social dialect					I	D	D	D	D	M	•	•	•
B12. Summarizes a spoken message						I	D	D	M	R	•	•	•
B13. Organizes information through notetaking and outlining							I	D	D	D	M	•	•
C. INTERPRETIVE COMPREHENSION													
C1. Distinguishes between statements and questions	I	D	M	R	•	•	•						
C2. Predicts a narration's outcome or next event		I	D	D	D	D	M	R	•				
C3. Distinguishes fantasy from probability				I	D	D	D	M	R	•			
C4. Distinguishes fact from opinion					I	D	D	M	R	•	•	•	•
C5. Interprets the speaker's mood					I	D	D	D	D	M		•	•
C6. Identifies relevant and irrelevant information							I	D	D	M	•	•	•
C7. Identifies a speaker's methods of emphasis								I	D	D		D	M

APPENDIX G

SAMPLE PUPIL EVALUATION POLICIES

The following evaluation policies are presented as samples of policies developed in three programs.

HEALTH

Evaluation has been defined as a continuous process of determining or judging the value or amount of something by careful appraisal. From the perspective of this course of study, and through the guidelines which follow, this process will include the basic considerations of assessing both program and student.

Program

Program assessment is a mutual, cooperative procedure that involves each local district and county office personnel in:

- conducting item analyses of standardized test results to determine broad areas of strength and/or weakness in the program
- determining procedures for evaluating existing educational programs in terms of the course of study goals and objectives
- initiating procedures for the review/revision provisions of the course of study (outlined in "Introduction")
- evaluating teachers' lesson plans to ensure that they reflect implementation of program goals and objectives
- conducting end of the year assessment of the course of study, using feedback to determine minor revisions.

Student

A variety of issues and considerations is involved in the all-important process of student-evaluation, beginning with observations about the evaluation process itself:

- evaluation includes a needs assessment procedure to establish a starting point from which a student is measured
- evaluation recognizes the learning potential of students
- evaluation is positive and is always used to help the student in the learning process.

Teacher

Assessment by the teacher considers:

- achievement tests and interest inventories
- item analyses
- class range of scores
- skills learned
- student's ability to apply skills
- level of each student's interest toward learning
- appropriate individual diagnostic techniques.

Prescription by the teacher includes:

- stimulating interests of the students
- channeling those interests toward course goals through diverse instructional materials
- providing means of skill development through exercises and activities which require student performance.

Procedures

A policy should be established by each local district for both formative and summative evaluation. Formative refers to the data collection procedures and evaluation judgments made during instruction, the primary use of the information being to improve instruction. Summative refers to the data collection and evaluation judgments made after instruction, the primary question being: "Has the student learned?" and "Has the teacher taught?" Items to be considered are:

- purpose of evaluation in each situation (evaluation vs. testing; achievement vs. effort)
- types of evaluations that can be used (observation, standardized tests, teacher-made tests)
- a frequency with which students are tested (once a week/month/semester or more frequently)
- components which should be included in the determination of a final grade (quizzes, final examination, oral presentation, laboratory reports, independent projects/reports, classroom behavior, study habits)
- extent to which there should be student self-evaluation
- types of tests that should be used (multiple choice, true-false, matching, essay, multifaceted questions, reports).

Policies developed by each local district should include:

- considerations for promotion, retention, and intervention
- a means of communicating policies to teachers, parents, and the community.

INDUSTRIAL ARTS

An evaluation process is required as a part of the course of study. Specifically, there must be provisions for measuring the outcomes of instruction in relation to established goals and objectives.

Evaluation has been defined as a continuous process of determining or judging the value of or amount of something by careful appraisal. From the perspective of this course of study and through the guidelines which follow, this process will include the basic considerations of assessing both program and student.

APPENDIX G

Program assessment is a mutual, cooperative procedure that involves each local district and county office personnel in:

Program Evaluation

1. Identify objectives from the course of study to be taught in each subject.
2. For each objective, develop criteria that would indicate attainment (e.g., scores of test items, lesson plans, individual student skill sheets).
3. Select or design instruments to be used for evaluating completion of program goals and objectives and subject objectives (e.g., projects, student testing, oral participation, anecdotal records).
4. Establish a calendar of evaluation activities (formal evaluation must be completed one year before course of study revision).
5. Collect and compare the degree of variance between desired objectives and evaluation results.
6. Prepare the evaluation report and share with intended audiences.
7. Initiate activities to implement any needed changes in the program and revisions in course of study.

Student Evaluation

1. Establish a starting point (pretest) from which a student is measured.
2. After instruction, use evaluation methods appropriate to each student.
3. Use student evaluation to reteach objectives not attained.
4. Teacher consideration for assessment shall include:
   - skills learned by students
   - student's potential to apply skills
   - learning style.

Updating the District Program

The objectives from the county course of study will be used in the design and development of courses.

Materials Selection

Educators are free to select textbooks from the approved list.

Course of Study Revision

The county course of study will be revised every five years. Professional staff members at all appropriate levels shall participate in the evaluation and revision process. This will be coordinated by the County Office of Education.

SOCIAL STUDIES

Evaluation has been defined as the collection and use of information to make decisions about an educational process. Evaluation is a collective term for all the ways available for obtaining feedback regarding program, staff, and students. Testing needs to be considered in the larger dimension of evaluation in social studies. It needs to be considered as only one means for obtaining feedback as to the effectiveness of functioning of both the teacher and students within the social studies curriculum.

Social studies programs must be systematically and rigorously evaluated. Thoughtful and regular reexamination of the basic goals of the social studies curriculum should be an integral part of the evaluation program. The district's educational goals, the course of study, local instructional guides, and research in social studies practices should all serve as excellent aids in the review of a district's philosophy, organization and administration, class management and instruction, staff, curriculum facilities and equipment, and evaluation. The two appraisal instruments published in 1979 are the "Social Studies Program Questionnaire" and the "Self-Appraisal Checklist for Social Studies in Ohio's Secondary Schools."

The design of the County Course of Study permits the localizing of the curriculum scope and sequence to meet the unique needs of the local school districts. Thoughtful review of the County Course of Study should be undertaken to assess the scope and sequence of content concepts and skills presently taught.

Student evaluation should be viewed by teachers and students as stepping stones to development rather than hurdles to be endured. A carefully planned and systematic approach to evaluation, which provides relevant data about student progress, will help to modify the many negative connotations associated with testing programs. Any evaluation of social studies content should include provisions for many sources and techniques beyond formal examinations; for example, anecdotal records, role-playing, interviews with samples of community people, and interaction schemes for analysis of classroom dialogue.

The County Social Studies Committee recognizes the importance of criterion-referenced testing as well as norm-referenced testing as part of a comprehensive testing program. The "learning outcomes" organization of the social studies curriculum scope and sequence in the course of study provides excellent criteria for the development of criterion-referenced testing programs. Pretests and post-tests utilizing learning outcome *statements* as the criteria provide teachers and students with information as to whether their behaviors, related to both teaching and learning, have been productive.

The County Course of Study will be the key document used in constructing an appropriate criterion-based testing program that correlates with the scope and sequence of the social studies curriculum.

APPENDIX H

PUPIL PERFORMANCE OBJECTIVES

The information in this appendix presents the types of categories of condition and criterion statements that are utilized within pupil performance objectives. Also provided are examples of condition and criterion statements in each category type.

CONDITION STATEMENTS

Category	Examples of Conditions
Equipment, supplies, or materials which the student is given to work with	• Having available all equipment within the laboratory... • Given a set of blueprints... • Provided access to all reference and materials in the library... • Given a list of performance objectives... • Using curriculum guides which provide program content information...
Materials to which the student is denied access	• Without aid of references... • Using only those materials provided... • Having available only that equipment which has been set up...

CRITERION STATEMENTS

Category	Examples of Criterion
Accuracy within a tolerance limit	• within ± .1 degree as compared with the instructor's reading • with a tolerance of ± .001 inch as measured by a micrometer
Speed	• completed within five minutes • ready for return to the customer within 24 hours of drop off
Percent or number to be achieved	• with 80% correct responses • two out of the three items meet criteria for the "finished product" • all information necessary for a dental history is recorded • at the rate of five per hour
Reference to other material which identifies specific criteria	• as compared to the manufacturer's specifications • using the evaluation guide which outlines specific criteria for table setting • according to class handout in communication skills • according to the criteria outlined in the text • according to office procedures • based upon the criteria specified in the assessment instrument

APPENDIX H

Category	Examples of Conditions
Maximum number of permissible errors	• with no more than two errors • with no more than one of the total items not meeting "standards" • missing no more than one reading/ recording within a two-hour period
Degree of excellence	• so that the shine will reflect a piece of paper • such that the seam will not split when the two pieces of material are jerked sharply • so that when the weld is submitted to a stress machine it will withstand 100 pounds of pressure • all criteria must be achieved at the good or excellent level • with no hair visible in the operating field
Or any combination	• the above criteria can be combined to further define the level of achievement necessary
Environment in which the performance must be demonstrated	• In an actual school situation... • In a simulated classroom or laboratory situation... • Using the fully functioning school auto mechanics laboratory...
Information that the student may be provided that will direct the action in a certain direction	• Given a written situation involving a family with ethnic eating patterns... • Provided two lists—one of terms and another of definitions... • Using a case study provided by the teacher...
Specification of the time in which the performance should be accomplished	• Upon completion of the course in sales... • After completing the required reading...

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Sample course of study components presented in the appendices were based on courses of study developed by the following school districts:

Chillicothe City
Dayton City
Franklin City
Fulton County
Granville Exempted Village
Pickaway County
Portage County, Southeast Local
Stark County
Twinsburg City

NOTES

NOTES

MINIMUM STANDARDS

IMPLEMENTATION SERIES

A K-12 Written Guidance Plan

Code of Conduct

Competency Assessment and Testing

Economics Course of Study

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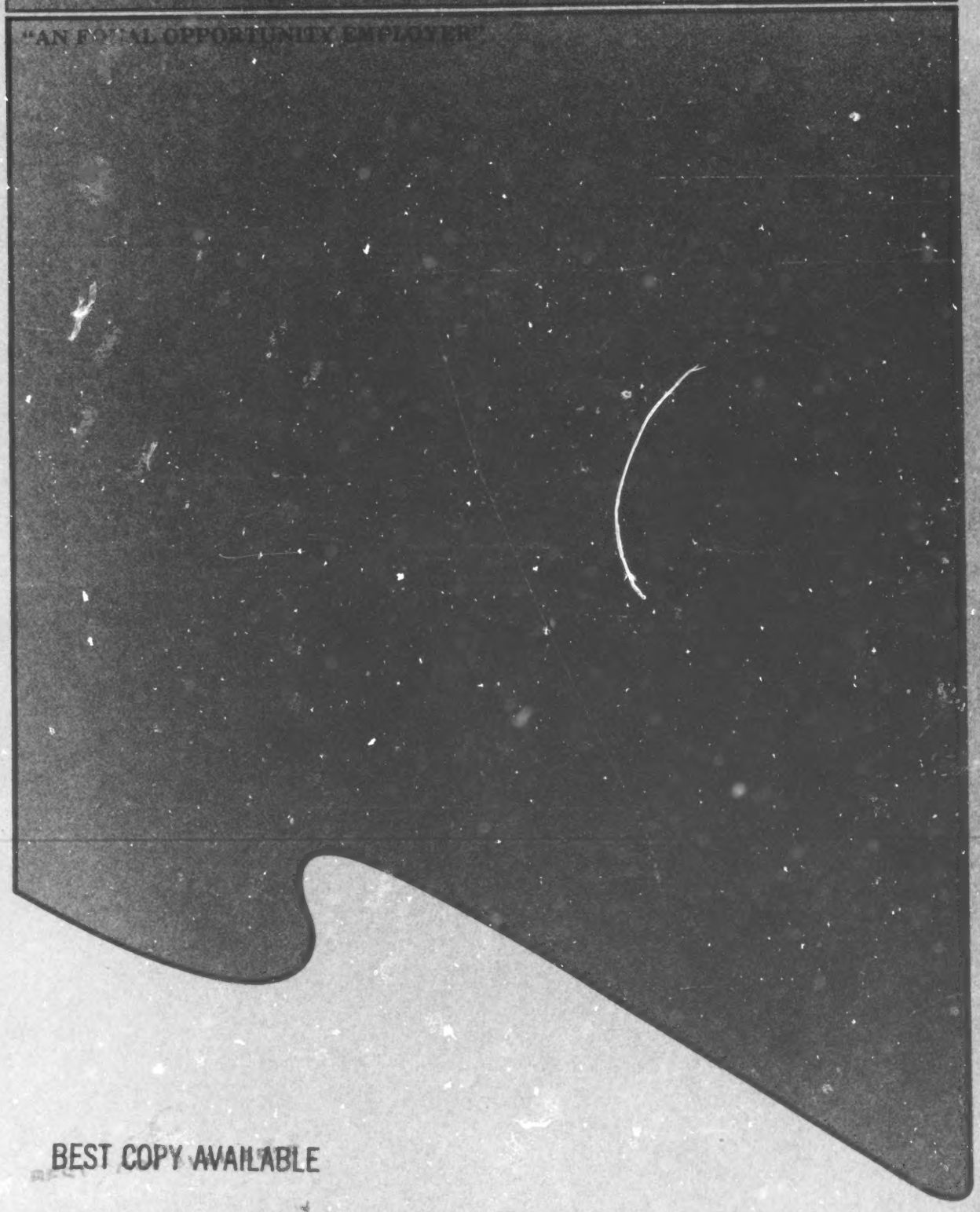

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